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CIS

PREVENTIVE MEDICINE AND HEALTH PROMOTION, 1981

HEARINGS

BEFORE THE

COMMITTEE ON

LABOR AND HUMAN RESOURCES

UNITED STATES SENATE

NINETY-SEVENTH CONGRESS

FIRST SESSION

ON

EXAMINATION ON THE MOST IMPORTANT ASPECT OF MEDICAL CARE, THE PREVENTION OF POOR HEALTH AND DISEASE

JULY 16 AND 17, 1981

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PREVENTIVE MEDICINE AND HEALTH PROMOTION, 1981

THURSDAY, JULY 16, 1981

U.S. SENATE,
COMMITTEE ON LABOR AND HUMAN RESOURCES,
Washington, D.C.

The committee met, pursuant to notice, at 2:39 p.m., in room 4232, Dirksen Senate Office Building, Senator Orrin G. Hatch (chairman of the committee) presiding.

Present: Senators Hatch, Quayle, Nickles, Denton, Kennedy, and Randolph.

OPENING STATEMENT OF SENATOR HATCH

The CHAIRMAN. We are happy to call this full committee meeting to order.

We have called these public hearings to bring attention to what we consider the most important aspect of medical care, the prevention of poor health and disease.

Our national expenditure for medical care now approximates $250 billion, a sum which exceeds the gross national product of all but nine nations in the whole world.

If this vast sum of money succeeded in making our citizens the healthiest in the world, perhaps it would be well worth the cost.

Unfortunately, this is not the case. We lag behind several countries with regard to infant mortality, accidental and homicidal deaths, and the frequency of certain malignancies.

Although our citizens live longer, many of them suffer from debilitating chronic diseases which are not necessarily related to normal aging and which render the quality of their lives very poor.

Over the past three decades, we have spent an increasing amount of taxpayer dollars to improve the health of all Americans. Certainly progress has been made and the United States enjoys a position of world leadership in biomedical and technological contributions to medicine.

Yet it has become increasingly clear that too many of our energies and resources have been spent at the wrong end of the health-illness spectrum.

I believe we can better conserve these precious human resources and significantly improve the quality of life for all Americans. We can do this if we can reduce and, hopefully, eliminate just a few of our major killers—those health plagues which seem entirely preventable.

Therefore, as chairman of the Labor and Human Resources Committee, I have called these hearings to learn from a number of distinguished scientists, experts, and informed citizens where we stand today with regard to preventive medicine and health promotion.

What efforts have been the most successful and cost effective? What is the proper role of the Federal Government and of the State governments? What contributions can be made by private industry and the voluntary private sector? What preventable health problems should receive our greatest attention?

I want to make it clear that it is not our intention that these hearings produce an encyclopedia of preventive medicine and health promotion.

We have heard from many individuals and organizations who wanted to hear or provide testimony.

Pleased with this abundance of public interest on the subject but constrained by the inelasticity of time, I must ask that all additional testimony be in written form for inclusion in the formal hearing record.

We welcome your recommendations and solicit your continuing review of all aspects of Federal health policy.

Before we proceed, I want to particularly commend the Commission for Responsible Health Policy, a group of highly accomplished professionals, chaired by Dr. Michael DeBakey, who are cosponsoring these hearings.

The Commission exemplifies the best traditions of citizen action—its dedicated work performed without Federal or public sector support. They have helped a great deal in bringing together our distinguished panel of witnesses today.

Senator Kennedy.

OPENING STATEMENT OF SENATOR KENNEDY

Senator **KENNEDY**. Thank you, Mr. Chairman.

I am pleased to be here today for this hearing on preventive medicine and health promotion.

Over the years, we have seen the importance of prevention for promoting the health of the American people.

I am particularly pleased that Secretary Schweiker is here with us today. During the decade that I served as the chairman of the Health Subcommittee and Secretary Schweiker was ranking member, he and I shared a deep commitment to promoting prevention as a sound cost-effective investment in our people's well-being.

I look forward to working with you, Mr. Chairman, and with Secretary Schweiker and with our distinguished witnesses to continue this important effort.

I want to point out that in 1978 the Subcommittee on Health and Scientific Research, under my chairmanship, conducted hearings on the issues of preventive medicine and health promotion. At that time we covered many of the same issues we're discussing today. In conjunction with those hearings, I introduced, with the cosponsorship of several Senators, the National Disease Prevention and Health Promotion Act of 1978, which subsequently became a part of the Public Health Service Act through Public Law 95-626. That act provided funds for the provision of preventive health services and for the study of preventive health issues.

Also in 1978, I delivered a speech at a conference, cosponsored by the American Medical Association and myself, which stressed the importance of disease prevention and health promotion.

It is important that this committee and the Congress continue a high level of attention and concern for the issue of prevention. Although we have made some progress in addressing America's need for preventive measures and health promotion, we still have a long way to go.

Our witnesses today will discuss the many facets of prevention and the contributions that the private sector, voluntary organizations, and State governments can make in the important area of preventive medicine and health promotion.

We shall also hear several speakers discuss the dramatic impact of individuals' lifestyles on health and the great possibilities for improving our Nation's health through the strategies which affect lifestyles.

I think the study that was done by Les Breslow from UCLA 5 or 7 years ago is probably still very current. It is one of the pioneering studies and was of great value and help to us in earlier years when we were considering this whole issue.

In the year ending December 1979, the Federal Government spent $49.13 billion for personal health care. Only $3.5 billion was spent on both prevention services and prevention research combined.

Overall, America spends a staggering $206 billion a year on health care; yet only about 4 cents of every health care dollar is spent for prevention.

This limited commitment to prevention is truly shortsighted, since even a small investment in prevention can save substantial, later acute care costs, to say nothing of the human misery that can be avoided.

Federally supported immunization programs are dramatic evidence of the impact of prevention efforts.

The national childhood immunization initiative was begun in 1977 when surveys revealed that over one-third of school-aged children were not protected against the major vaccine preventable diseases—a dangerous threat to the health of our children, to the unborn, and to our Nation as a whole. This alarming situation came about because we relaxed our strong Federal commitment to assuring adequate immunization levels.

The 1977 initiative set a goal of raising immunization levels to over 90 percent by the fall of 1979. Needed resources were committed to the effort, and that goal was attained. Today, fully 91 percent of the 24 million children between kindergarten and eighth grade are protected.

The importance of adequate levels of immunization is indisputable. Encephalitis occurs in 1 out of every 1,000 measles cases, often producing permanent brain damage; death occurs in 1 of every 10,000 cases. One case of deafness occurs in every 16,000 cases of mumps. Diptheria, whooping cough, and tetanus can cause serious respiratory, cardiovascular, and nervous system complications. Whooping cough is fatal to 1 of every 100 children afflicted. No one would want to recall the scourge of paralytic polio.

Yet our children can be protected from every one of these childhood diseases. And the savings in human life, misery, and economic resources are huge. For every $1 we spend to immunize our children against measles, for example, we save $8 in treatment costs. The Massachusetts Commissioner of Public Health has estimated that the net savings of the Massachusetts immunization program over the past 15 years exceeds $16 million.

I welcome the fact that in the development of the administration's health program they separated out the immunization programs from the block grant program. I know that that was the work of the Secretary. I applaud those efforts.

I think all of us were troubled by the reduction in the resources for that program, but we are heartened by the fact that the Senate Appropriations Committee has funded that program.

The need for it is obvious, and the cost-benefit ratio of that is self-evident. The reduction in human misery, of course, is self-evident as well.

Genetic screening and treatment is another primary area for improving the health of our Nation's people. We have seen, whether it has been in the Tay Sachs area or other particular genetic problems, the importance of screening.

Today, we hear a great deal about the controversy over genetic research and services, yet I can see the day when genetic diseases can be prevented altogether. Even now, current techniques permit the screening of newborns at birth to detect at least six different conditions causing mental retardation.

If promptly detected at birth, severe mental retardation can be avoided, and the baby will be able to lead a substantially normal life.

More can and should be done. All States are currently testing for PKU but substantially few are testing for other conditions like hypothyroidism and galactosemia.

CDC has estimated that a nationwide hypothyroidism control program added to PKU screening would cost less than $6 million and produce a savings of over $52 million.

The State of California has estimated that adding hypothyroid and galactosemia screening to its present PKU screening program would increase its total costs of screening and treatment for the victims of the three diseases by less than $1 million; yet the long-term savings would total an estimated $169 million.

Prenatal diagnosis stands on the threshold of a remarkable new age when crippling conditions can be avoided or their effects minimized. Even now, with the assistance of prenatal diagnosis, deliveries can be planned to occur in hospitals staffed and equipped to begin immediate treatment.

Prenatal diagnosis also permits the treatment in utero of some conditions which otherwise would be crippling or ultimately fatal.

In this area, the reductions in funding of programs for prenatal feeding programs for expectant mothers is something that I think we should take note of.

I think all of us are mindful that prevention is important to health promotion, and disease prevention is extremely important for health policy. It is ultimately saving resources.

I think we are also going to find out that we are going to have to invest some resources in order to carry forward that effective policy concern.

Secretary Schweiker would be the first to point out that cigarette smoking is the major cause of all lung cancer deaths and is the No. 1 cancer killer among men. It is fast approaching as No. 1 among women also.

Cigarette smoking is also a major factor in coronary artery disease, chronic bronchitis, and emphysema. We also know that there is a relationship between cigarette smoking and cancer of the lip, tongue, mouth, throat, esophagus, and bladder.

If every American smoker stopped smoking tomorrow, within a year we would see a significant improvement of the health status of these ex-smokers. There would be an improvement in their lung and heart functions. There would be a substantial increase in savings in terms of health costs and increased productivity. Ultimately, there would be a decrease in the early death rates.

Clearly, then, any gains that we can make in reducing and eliminating cigarette smoking as a public health problem will be a significant contribution to the well-being of America.

The CHAIRMAN. Can we not include cigar smoking too in that?

Senator KENNEDY. No; that is an entirely different thing. [Laughter.]

The jury is out on that one.

The CHAIRMAN. I feel like I am halfway there to cancer sometimes sitting next to Senator Kennedy on three committees.

Senator KENNEDY. We do not want anything to happen to you.

The CHAIRMAN. I know that. [Laughter.]

Senator KENNEDY. Senator Schweiker showed his good judgment. At his request, we did not have any smoking during our health committee hearings.

The CHAIRMAN. You mean I am going to be reprieved here today?

Senator KENNEDY. You have not seen me light up yet.

The CHAIRMAN. Actually, I will say this. I do not mind his cigars. They are the most expensive that we have in this country—or should I say out of the country.

Senator KENNEDY. You are a discerning man, Mr. Chairman.

The CHAIRMAN. I apologize for interrupting you.

Senator KENNEDY. You are not forgiven. [Laughter.]

Lifestyle changes involve many other areas of concern. Unfortunately, nutrition will not be one of the topics discussed here today. Poor eating habits cost this Nation over $30 billion a year in doctor and dentist bills. Combating obesity, which affects one-third of adults and over 40 percent of children, has become a multibillion-dollar-a-year industry, with many Americans falling victim to deceptive dieting schemes and unproven programs. Some studies estimate that diet is related to as much as 50 percent of all cancers in women and 35 percent of all cancers in men.

Exercise is another key component of lifestyle. Many studies show that exercise reduces the risk of fatal heart attack as well as promoting a general sense of well-being. In the years since President Kennedy launched the President's Council on Physical Fitness, there has been a growing awareness of the importance of exercise in America. The number of adults who exercise has more than doubled since 1960, and 50 percent of the American population claims to engage in some form of exercise. Our parks and recreation areas are dramatic testimony to this welcomed development—they are filled with more than 11 million joggers, more than 15 million swimmers, more than 15 million bicyclists, and almost 14 million regular tennis players. Despite these increases, however, there are not enough community programs designed to help individuals change their risky behavior and alter their lifestyles.

We have made progress over recent years in promoting prevention. The public awareness of the need for good prevention practices and healthy lifestyles is growing. Much more needs to be done.

I hope this hearing will represent a continued commitment to assure a healthy and productive lifestyle for all Americans.

I think this is a continuing and ongoing and important effort of health policy. I just want to congratulate you, Mr. Chairman.

I look forward to the Secretary's statement, and I want to pledge my wholehearted and complete support in this.

The CHAIRMAN. Thank you, Senator Kennedy.

We appreciate that, and we do realize what you mean to this field and how hard you have worked through the years, along with my former ranking minority leader, Senator Schweiker, now Secretary of Health and Human Services.

Senator Denton, do you have a statement?

OPENING STATEMENT OF SENATOR DENTON

Senator DENTON. Thank you, Mr. Chairman.

I appreciate having the opportunity to participate in this hearing, jointly sponsored by the Labor and Human Resources Committee and the Commission for Responsible Health Policy.

The topic is of special interest to me. I have long felt that if we concentrated on prevention and primary intervention, we would have fewer health and social problems in this country and less demand for public resources to solve them.

In this regard, I am pleased that the Commission for Responsible Health Policy is striving for increased private sector participation in preventive health efforts.

There are many aspects to prevention, some of which may take us into controversial areas, such as regulation in the workplace, environmental quality, and Government responsibility for health services.

One facet of prevention which I believe we can all agree on in many respects is the importance of behavior to our health—behavior which often begins at an early age.

Poor nutrition habits, smoking, alcohol and drug abuse, and sexual relations in childhood and adolescence may determine later susceptibility to disease.

While there is concern over the implications of these activities for the health of young people, I believe that society has, in fact, glamorized many detrimental behavioral patterns.

To counterbalance this trend, I believe it is vitally important that young people and their parents are better informed.

I would like to share some facts which are at my disposal and upon which the witnesses will no doubt expand. The most prevalent nutritional problems in young people are overeating and eating foods of little or no nutritional value. Childhood obesity often carries over into adulthood and may lead to hypertension, heart disease, and diabetes.

Further, many young people are eating an excessive amount of sugar and fat in so-called junk foods. One consequence of too much fat consumption, in particular, may be teenage arteriosclerosis.

Smoking seems to be on the decline on the general population, notwithstanding what was said by the chairman. One HHS statistics cites 14 million Americans as ex-smokers.

What is alarming, however, is that smoking among teenage girls is on the increase. The rugged man on horseback in the cigarette advertisements has given way to the young sophisticated woman.

As a smoker myself, I find this strong appeal which smoking has for teenagers rather discouraging.

Alcohol and drug use have varied implications for mental and physical health, and it is clear that dependency on these substances may impair mental development and endanger physical well-being in young people.

One could cite the automobile accidents and deaths relating thereto.

It is alarming that Federal data indicate 37 percent of adolescents 12 to 17 years old are using alcohol, and 31 percent in that age group are using drugs. Those figures more than double in young adulthood.

Adolescent sexual relations should be of particular concern. Presently, about 40 percent of teenagers 13 to 19 have had sexual intercourse.

There are physical and mental health risks associated with premarital sexual relations, of which most adolescents are unaware.

For instance, physical health risks include increased rates of cervical cancer and venereal disease.

There are less tangible but equally serious emotional risks involved with premarital sexual relations. Adolescents are coming of age in a society characterized by shifting values and traditions. While they may be physically equipped for sexual relations, they may not be emotionally ready.

Premarital adolescent sexual relations can be damaging to mental health, counterproductive to the normal maturation process, and have been shown to increase the probability that marriage in later years will end in failure.

To ignore these aspects of preventive health would, in my opinion, be overlooking a major problem and would, indeed, be flying in the face of data given to me by counselors all over the State of Alabama.

As some here know, I have introduced legislation with Senator Hatch which seeks to involve family participation, promote self-discipline, and prevent many of the problems associated with premarital adolescent sexual relations.

The legislation is the adolescent family life bill. It was passed unanimously by the overall committee.

I have mentioned these areas because each young person in America is at risk from them. I believe we need a marshalling of forces—Government, business, communities, families, schools, and media—to arm young people with information which will allow them to make responsible decisions about their lifestyles, resulting in their happiness and that of their prospective children.

Beyond that, children and adolescents must be taught self-management skills that enable them to withstand peer pressure to engage in harmful activities.

I am hopeful that the able witnesses you have called here, Mr. Chairman, will share their ideas on how this may be accomplished.

The CHAIRMAN. Thank you.

Senator Randolph, we appreciate your being with us here today. We will be happy to take any statement you care to make.

OPENING STATEMENT OF SENATOR RANDOLPH

Senator RANDOLPH. Thank you very much, Mr. Chairman.

I note that you are 47 years of age; Senator Kennedy is 49 years of age; and Senator Denton has just had a birthday a few hours ago and is 57 years of age. I am delighted to be associated with younger men. [Laughter.]

The CHAIRMAN. We are delighted to have your leadership here.

Senator RANDOLPH. I am delighted to have you back on the Hill, Secretary Schweiker. We have worked with you here and in other committees. We know that you are an effective administrator of one of the important agencies of the Federal Government.

I will take only a minute or two to comment, because we need to go to the witnesses.

I have long felt that the matter of health is a matter of a mental attitude, as well as, say, the strengthening of your physical being.

This is not to say that the medical profession and the scientific advances made are not highly important; they certainly are. However, I believe there are basics that are very important as we consider this subject matter.

Back to my comments.

I believe that some illness is caused, in large measure, by your attitude in life. I believe that illness is caused by envy of one person for another. I believe that illness is caused by malice in the heart of one person toward another—whatever the subject matter may be that he or she is against. I believe that illness is caused by anger in an individual.

These are three of the reasons for illness that I mention here in layman's language, because we never discuss them. They are, however, the result of stress.

The attitudes of an individual are very, very important; and I want that spread on the record at this time.

I shall be intensely interested in following these hearings. Other commitments I have will not allow me to remain here, but I did want to come especially to listen, as much as I could, to the testimony of Dr. LeRoy Pesch.

To me, he is creative and constructive. I have known him for a long time.

I am sure that these hearings will be very, very valuable.

Thank you very much.

The CHAIRMAN. Thank you, Senator Randolph.

At this point we will receive for the record the prepared statement of Senator Nickles, a member of the full committee who is unable to be with us today.

[The prepared statement of Senator Nickles follows:]

PREPARED STATEMENT OF SENATOR NICKLES

Senator NICKLES. Today represents one aspect of this committee's very major task of developing an effective and responsible approach to controlling the cost of health care. National health care expenditures have increased for nearly 50 years as a percent of the gross national product. More graphically, the average cost of a day in the hospital in 1965 was $41 per day, in 1979 it was $226 per day. Although in recent years some indicators have shown a small decline in the rate of increase of the cost for health care, one still finds that it is consistently higher than our overall inflation rate. It is our committee's responsibility to answer the call for action that such statistics make.

Chairman Hatch is to be commended for the foresight that he has shown in his recognition of this very serious problem and the innovative ideas that he has already pursued such as legislation which encourages families to take care of their elderly as an alternative to costly institutional care.

Senator Kennedy, too, should be recognized for his grasp of the enormity and complexity of the challenge that lays before this committee.

As for myself, I am vitally interested in the concept of avoiding spending big dollars for crisis health care by spending little dollars in preventive health care.

Yet, after making such a statement of interest in this concept, I feel it necessary to add a qualifying word. I think that it is imperative that in the midst of making changes in the national health care policies of the Federal Government, this committee not act in haste and put money into ideas and programs that make sense in theory but, in fact, really do not work. There are questions that demand answers. Can people's eating and exercise habits and their reactions to stress really be changed by public awareness campaigns? Is prevention cost effective in terms of the bottom line difference it makes in how much money the Federal Government spends each year for health? This committee needs hardcore evidence to answer such questions. We can no longer afford a hit and miss mentally in deciding what programs to put taxpayer money into.

So, I come today to listen with interest, but with interest that is tempered by what I feel is a healthy skepticism.

Secretary Schweiker, I look forward to hearing your words on this subject, for I know that you, too, are seeking answers to the problems of soaring health care costs, but want to demonstrate fiscal responsibility in all public money expenditures.

The CHAIRMAN. It is now my pleasure to introduce our first witness, the Honorable Richard S. Schweiker, Secretary of the Department of Health and Human Services.

Secretary Schweiker was an outspoken proponent of healthy living and preventive medicine before it became fashionable nationally.

His legislative activities in the Senate and his personal life underscore this commitment.

I happen to know that his personal jogging regimen has put him in the James Fix class. He is obviously one preventive health warrior who practices what he preaches.

Therefore, we are pleased and honored that he agreed to be with us today and to share with us what the administration considers to be our greatest health problems and how we can best accomplish the goal of improved health for all citizens.

As a Senator who served the prior 4 years with Senator Schweiker, I just want to express my own personal admiration for your leadership while you were on this committee and in so many other ways on the floor of the Senate, and otherwise, as I served here as a brand new freshman Senator.

You have been a great friend, and we are really happy to have you here.

STATEMENT OF RICHARD S. SCHWEIKER, SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES

Secretary **Schweiker**. Thank you, Mr. Chairman.

I am delighted to be back in my old committee habitat, and I appreciate the friendly and warm welcome. It is good to see so many acquaintances and friends in this setting.

I am very pleased, frankly, to take part in these hearings on health promotion and preventive medicine. I commend the committee and the chairman for emphasizing these critical issues at this particular time.

Actually, it is a watershed time—both in terms of our scientific knowledge base and the public interest to project a health strategy for the coming years and decades.

In the framework of the Department of Health and Human Services, I am personally committed to a prominent role for health promotion and disease prevention as an essential element of our health strategy—indeed, as our highest health priority.

In fact, as this committee knows, when I served as ranking member, I strongly advocated putting health promotion and prevention at the top of our national agenda.

We continue to pay out vast sums for curing illness. Yet based on knowledge we now have—much of it supported by Federal research funding—we know that much of that illness could have been prevented by uncomplicated actions that communities, individuals, and medical practitioners who serve them could readily take.

I believe that all of us—each segment and institution of society, have a responsibility to work to secure the full benefits of prevention for our people. Health promotion and disease prevention should take an equal place alongside the benefits available from our marvelous 20th century medical care system.

My Department, and particularly the Public Health Service under the capable leadership of a preventive medicine specialist, Dr. Edward N. Brandt, has become increasingly involved in the field of preventive medicine.

One of the things that impresses me about the field is the diversity of opportunities that exist to promote better health.

For example, I have recently had the occasion in Atlanta to address a conference on childhood immunization, and in Washington to speak at meetings on cancer, nutrition, and alcohol, drug abuse, and mental health promotion at the work site.

These are just a few of the health problems that are being considered constantly by health workers in and out of Government.

My Department's activities in prevention are considerable. These activities span a wide range, including those such as high blood pressure control, pregnancy and infant care, immunization and infectious agent control, toxic agent identification, nutrition and fitness programs, and efforts to reduce smoking.

Most of our HHS agencies are involved in some way in prevention-related activities.

Of course, prevention comprises the entire mission of the Centers for Disease Control and a large part of the mission of the Food and Drug Administration.

However, efforts important to prevention are also integral mandates of the other PHS agencies—the Alcohol, Drug Abuse, and Mental Health Administration—ADAMHA—the Health Resources Administration, the Health Services Administration, and the National Institutes of Health which all devote significant shares of their budgets to help prevention.

Of course, Government can only play a small part if prevention efforts are going to be truly successful.

Another thing that impresses me about prevention is the tremendously supportive response one gets from outside the Government. Indeed, I dare say that the voluntary agencies, leading corporations, public health agencies, academic centers, and professional societies in America have greater common ground and have more collaborative endeavors already underway in prevention than in virtually any other issue one could name.

When I was in the Senate, I became most concerned about a number of health problems where prevention had a significant role, such as diabetes, nutrition, and the health of children.

In these areas, I observed just how active, dedicated, and supportive these resources outside of Government can be.

The broad array of witnesses in these hearings is further evidence of a groundswell of support for prevention.

The role of the Federal agencies in prevention should be, in my view, that of a leader and of a catalyst for, as well as a partner with, the elements of society that can help individuals and families reach out for good health.

In this respect, I am particularly proud of our efforts to work with business and industry in the development of worksite health promotion guidelines and with voluntary organizations which are designing innovative new thrusts in prevention.

The Red Cross has just initiated for the first 10-year phase of their new centennial coming up a bold new program in disease prevention and health promotion.

I might say that it completely ties in with our National Heart, Lung, and Blood Institute activities; so it is a joint effort that we are making with the private sector, as well as with the communications sector—NBC—and ourselves to promote health prevention and hypertension consideration and other factors that lower the risk, in terms of preventive health care.

The United Way has also completed an insightful strategy paper on opportunities in prevention. The March of Dimes and a number of other voluntary and professional organizations have already begun cooperation with this department in our healthy mothers campaign.

This campaign is designed to teach women, through the mass media, how they can reduce health risks to themselves and to their babies.

The National Institute of Alcohol Abuse and Alcoholism, the Office on Smoking and Health, and several other agencies within the Public Health Service have designed the campaign not only to teach but to motivate women toward healthier lifestyles.

In particular, we will try to reach women with known medical risks, such as those with genetic or chronic diseases, disadvantaged women, and pregnant teenagers.

By focusing on the importance of regular prenatal care, nutrition, exercise, and the need to avoid alcohol, tobacco, and environmental risks, we believe a strong program of public information can benefit millions of mothers and children.

We are tremendously encouraged by the fact that the March of Dimes and other national voluntary organizations are taking part and making it a major part of their program, because with the cooperation and participation of community-based groups we can successfully reach a wide audience of American women.

The national high blood pressure education program, which you will hear more about tomorrow, is a model for these coordinative efforts. This program is a program of about 15 Federal agencies, 150 major national organizations, 50 State health departments, and 2,000 organized community control programs.

The principal Federal role in the process is that of facilitator—through the design of intervention methodologies, the identification of target groups, and pulling together participants.

Just 2 weeks ago, FDA Commissioner Hayes and I met with representatives of 78 food industry associations to enlist their support of an effort to reduce the amount of sodium in the American diet. Reduction of sodium is important to 25 to 50 percent of the estimated 60 million Americans who have, or may be disposed to have, hypertension.

We have set out five steps in an initiative to reduce the intake of sodium:

First, we will work with industry to encourage food processors on a voluntary basis to reduce the amount of salt in processed foods. As part of this program, we will also encourage more research into the effects of sodium on health.

Second, we will propose new rules to include quantitative sodium declaration as an element of nutritional labeling and continue to permit manfacturers to include quantitative sodium labeling without triggering full nutrition labeling.

We will also propose to define such terms as "low sodium and reduced sodium" when used in labeling.

Third, we will consider legislative options for including sodium labeling on other products where the need is evident.

Fourth, we will work with industry, USDA, Public Health Service, and other Government agencies and interested nongovernmental organizations to help consumers make the most effective use of the new labeling and to raise consumer awareness of the effects of sodium on health.

Finally, we are and will continue, through our total diet analysis program and other programs, to systematically monitor changes in sodium consumption to see whether we are making progress toward our goal

The State public health agencies and their counterparts at the municipal and county level have an especially important role in the prevention partnership.

Over the years, our public health agencies have quietly but effectively been instrumental in prevention endeavors. Many of these are today taken for granted, but they had near revolutionary impact on life expectations—for example, sanitation of food, milk, and drinking water; universal childhood immunization; and prevention of epidemic levels of infectious disease.

Until recently, however, critics of public health found the official health agencies lacking, both in commitment to the prevention of the health problems of today and in the technical capability to provide leadership and services in these areas.

Not long ago I met with a group of the senior health officers of the States. I was pleased by their expression of interest and concern about State and local involvement in health promotion.

I note that two State health officers are participating in these hearings.

The administration's block grant proposals explicitly included a block grant to States for prevention.

While not every State has the same mix of preventable disease and health risk reduction priorities, it is clear that each State needs to have prevention resources and the flexibility to use them in order to take a proper leadership role in the new, as well as the traditional, areas of public health concern.

We particularly appreciate your leadership, Mr. Chairman, in this committee in working out some of these health block programs, particularly in the preventive health block area. We are very indebted to you for this work.

The CHAIRMAN. Thank you.

Secretary SCHWEIKER. This brings me, Mr. Chairman, to what I view as one of the most important obligations we have in this partnership. That is to insure that a sound research base is developed to support and advance all of our prevention activities.

Our activities in prevention are numerous. As evidenced in our improving health profiles, they have been successful. Their success has been afforded because research has revealed new and more effective techniques of intervention.

To the extent that we will continue to make this possible, we are dependent upon continued development of the knowledge base. In fact, those preventive efforts based upon solid basic and applied research are most likely to be successful.

We estimate that of the total moneys spent by HHS on prevention in fiscal year 1980, about 15 percent was devoted to prevention research.

When I say prevention research, Mr. Chairman, I am offering a relatively narrow definition. After all, we view all our biomedical research as ultimately important to prevention.

In this case, I am only referring to that research which is specifically designed to be directly applicable in the prevention of disease and promotion of good health.

The NIH oversees most of this activity with about 500 million dollars' worth of preventive research in fiscal 1980, or about 17 percent of the total NIH budget.

Of course, other agencies, such as FDA, CDC, and ADAMHA, also contribute to preventive research.

For example, in fiscal year 1980, about 6 percent of ADAMHA's research budget was for preventive research.

Both the challenges and the prospects for this research are exciting.

I recently visited the NIH campus for the primary purpose of talking about their preventive research activities. While there, I heard about some of the breakthroughs which might be expected by the year 2000—breakthroughs like those related to chemoprevention of cancer, use of multiphasic metabolic profiles to detect developing conditions at early stages, identification of different factors contributing to aging—for example, shifts seen in brain metabolism during the onset of senility—and development of effective ways to motivate people through health education and health promotion efforts.

Because of the importance of this work, I intend to focus greater attention on the preventive component of our research at NIH. I will have something to say about that later on as this program evolves.

It is time that we think broadly about the potential to bring interdisciplinary skills to bear in support of our efforts both to find new solutions and to apply more effectively what we know.

In this respect, we will help disseminate the findings of preventive research as widely and as rapidly as possible. We will provide technical help to any organization that seeks to start or to improve or to broaden community programs. We will actively encourage academic centers, private industries, community organizations, and the States to make prevention a major health priority and to enlist them in joint efforts to accomplish that. The potential for gain is considerable.

In summary, society today is poised to accept a dramatic new idea: That it is possible for people to choose to stay well and to avoid disease, rather than merely to seek the help of others to make them better once they are sick.

Successful health promotion and disease prevention depend, as so much of this Nation depends, on freely made choices by individuals and families.

The American public is, and insists on being, responsible for its own health decisionmaking. However, just as the public can rightly expect to be protected from health problems, such as infectious disease and environmental hazards where individual action alone is not enough, so the public rightly expects to have access to the knowledge, the information, and the skills needed to make sound decisions about health behavior.

That knowledge can be lifesaving.

A California study has shown that life expectancy and better health can be significantly related to a number of basic daily lifestyle habits relating to nutrition, exercise, smoking, alcohol use, and rest.

In fact, the study concluded that a 45-year-old man who scored poorly on these life style dimensions could expect to die 11 years sooner than his counterpart who has been more prudent in all of them.

The significance of that, Mr. Chairman, is that recently we felt we have made great strides in expanding our life styles 25 years in this century. In truth, we have if you were born today; because we basically have extended the maternal life rates and the children's ability to live longer. We have only impacted on people my age about 6 years. People my age from the last century can only be expected to live about 6 years longer.

By the same token, what we find here is that people my age, if they practice the things that I mentioned, can be expected to live 11 years longer, or twice as much as the gifts of medical science today.

I think it is very important to emphasize the importance of individual life style and personal decisionmaking if we really want to lengthen our lives today for those in the over-50 bracket.

Thus, we need to help parents, teachers, and children see the relationship between nutrition and normal healthy growth. We need to help families understand the steps they can take to reduce risks of accidental injury or preventable childhood disease or manageable chronic health problems they already have.

We need to help individuals, especially young people, become aware of the hazards of using alcohol, drugs, and tobacco and the places they can turn in their communities for information on and for help with these problems if they need it.

We need to encourage access in workplaces, schools, and communities for exercise and improved physical fitness for healthful foods and for health promotion programs and services.

Recently, the Public Health Service in collaboration with over 2,000 experts, developed and issued a set of challenging national targets for prevention—measurable gains in health status, public awareness, and public health services that can be achieved by 1990.

I encourage the committee to explore with the expert panels appearing here today and tomorrow what should be done to help this Nation attain by 1990 the health improvements that are within our reach.

Thank you very much.

The CHAIRMAN. Thank you, Mr. Secretary.

Senator Denton has a question for you.

Senator DENTON. Although Senator Randolph has left, I would like to thank him for mentioning my birthday.

My eldest daughter sent me a card yesterday which stated that in a recent poll four out of five of my friends had said I was looking younger. The fifth friend, who was sober, had no comment. [Laughter.]

I would like also to greet the Secretary today and express the respect that I have gained from associating with him. He has tremendous intelligence, industry, imagination, and integrity. I am glad he is in the position to supervise the activities with which this committee is functionally associated.

I would also like to express my admiration for our chairman who has been a most effective and inspirational leader and a real advisor who is of great use to myself.

The **Chairman**. Thank you.

Senator **Denton**. Mr. Secretary, in the context of preventive health, could you briefly mention what the Department is doing to give young people and their parents information which might allow them to make proper choices about lifestyles?

I believe that efforts such as those embodied in the adolescent family life bill, which has been somewhat misrepresented in the press, which Senator Hatch and I introduced and which as I said was unanimously passed by this committee, is a step in the right direction. Would you comment?

Secretary **Schweiker**. My reaction is that if Senator Denton and Senator Kennedy can get together on this issue, so can I.

I think we certainly support that concept and will be glad to work with the committee in working out the implementation of it.

Senator **Denton**. Thank you.

The **Chairman**. Senator Randolph, we will turn to you for any questions you might have.

Senator **Randolph**. I regret that I was unable to listen to the statement of the Secretary.

The **Chairman**. We will keep the record open for that.

Senator **Randolph**. I join my colleagues in wishing you well in the important task that you have before you.

I do not want to be misunderstood. When I mentioned the problems of overcoming negativism in our lives, I am very sincere about this. I think a positive mental attitude can lick a good many physical problems that we think we have—some that are imagined as well as those that are real. I am an advocate for preventive mental health services as part of our total health care delivery system.

That is the reason that I called it to the attention of the committee today.

Thank you very much.

The **Chairman**. Thank you.

Mr. Secretary, I am pleased to hear you place disease prevention as the highest health priority for your Administration.

From your testimony, it is apparent that in addition to previous Federal efforts, you will encourage an awareness of the potential of harmful effects from sodium or salt.

Is it your opinion and the opinion of your staff that you think all Americans should consume less salt?

Secretary **Schweiker**. Yes, Mr. Chairman.

I guess the average American consumes somewhere between 5 and 10 grams of salt. Depending on which advice you follow, we do not need much more than about one-half to 1 gram of salt at the most. Somewhere along the way we are consuming as much as 10 to 20 times more salt than we need to have.

The problem is that there are 60 million Americans who are potentially affected by hypertension or high blood pressure.

The estimates from our Institutes of Health indicate that as many as one-quarter to one-half of those 60 million potential high blood pressure people are what we call salt-sensitive, meaning that their blood pressure will clearly go up if they eat the level of salt that Americans consume.

It would be rather ridiculous for us in the responsible positions we hold not to lead this campaign.

I was concerned about it as a Senator. I think the facts are pretty strong in this area now. I am delighted that Commissioner Hays and I see completely along the same lines.

We are starting a strong effort to reduce the salt consumption.

It is important to say that salt is needed. It is an important part of our diet; there is no question about that. We do not want to take it out, but we certainly want to reduce the amount of salt. It is particularly a problem in processed foods where people have no idea how much salt they are consuming and have no control over it. Where they can see it on a label or add it on the table, that is something different.

However, processing is the main problem. That is why we called this industrywide meeting—to get the trade associations to begin to process their salt differently.

The CHAIRMAN. I have a number of other questions that I will submit to you, knowing how busy your schedule is.

One, in particular, will involve this. You cited several worthwhile efforts in health promotion from private institutions and State governments. I will be interested in having you recommend to us how we might coordinate these efforts to eliminate duplication and insure that our health dollars are efficiently spent.

Let me submit those questions to you in writing and allow you to get back to your busy duties downtown.

Again, I would express the appreciation of this committee to you and your staff for being with us today and for the excellent statement you have made.

Thank you, Mr. Secretary.

Secretary SCHWEIKER. Thank you very much, Mr. Chairman.

The CHAIRMAN. It is a pleasure for me to now introduce Dr. Michael E. DeBakey. He is a world-renowned surgeon. He is also world-renowned as a teacher and for his courage in pioneeering new areas of medical research and health policy.

Although he has many titles and honors, he is here today as chairman of the Commission for Responsible Health Policy. We are happy to cochair these hearings. We wish you were sitting up here, and you are certainly invited if you would like.

We are very interested in your testimony at this time, Dr. DeBakey.

STATEMENT OF MICHAEL E. DEBAKEY, M.D., CHANCELLOR AND CHAIRMAN, DEPARTMENT OF SURGERY, BAYLOR COLLEGE OF MEDICINE, HOUSTON, TEX., AND CHAIRMAN, COMMISSION FOR RESPONSIBLE HEALTH POLICY

Dr. DeBakey. Thank you, Mr. Chairman.

I would like first to express my very grateful appreciation to you and the members of your committee in allowing us to participate in these very important hearings.

I want to say that we believe very strongly that this subject is of great importance, in fact increasing importance, in our society and that much more can be done to establish a more-effective program of prevention and enhancement of better health.

I am not going to read my entire testimony, since I would like to save some time for the other members who are testifying.

I would like to ask permission to submit my testimony for the record.

The Chairman. Without objection, your complete testimony will be placed in the record following your oral presentation.

Dr. DeBakey. Thank you.

We have assembled, as you see from the agenda, a number of representatives of what I think is the best current thinking in preventive medicine.

While I am sure that this group does not have all the answers, I am hopeful that some long-term strategies can come out of the hearing on the basis of their discussions in these various areas.

Although I am a surgeon and, therefore, practice the practical aspects of medicine, in terms of medical care, I have long been aware of the importance of prevention.

We attempt in our own way to institute preventive measures with our patients.

In the field of cardiovascular diseases, and particularly in the field of cardiovascular surgery, we are very much aware of the importance of prevention in certain areas, particularly in certain of the so-called risk factors.

Among these is hypertension which has already been mentioned. I personally believe it is one of the most important risk factors that we have to deal with.

Fortunately, we do have measures that can control hypertension very effectively.

Reference has already been made to the program of hypertension. Secretary Schweiker has indicated what has been done in this area.

I might say that I personally had some role in it since a private group, referred to as the Citizens Committee for the Control of Hypertension, of which I happen to be chairman, began with the then-Secretary Richardson in 1972 to develop a program for the control of hypertension.

That will be elaborated upon in a more detailed fashion by Mr. Ward a little later on.

I would like to emphasize its importance as evidence that prevention can be very effective if it is properly performed.

The death rate, for example, during that same period of time has steadily declined, both in heart disease and in strokes. In strokes, it has been extremely impressive.

The age-adjusted death rate from strokes during the past 7 or 8 years has dropped by 38 percent. This is one of the steepest drops in death rates in all of these various fields of diseases.

Heart disease itself has dropped also very steeply--something on the order of 20 to 25 percent.

I personally believe that a great deal of this is due to the control of hypertension that has been developed during this period of time.

There is no question in the minds of many of us who are familiar with these aspects of prevention, particularly in hypertension, that this is a very good example of what can be accomplished by effective measures of prevention. There are a number of others.

Of course, there are no magic formulas for preventive medicine as a complete program. A primary principle which Secretary Schweiker referred to involves correcting poor personal health habits.

We know that changing intrinsic behavior is extremely difficult.

We at the Baylor College of Medicine have established an Institute of Preventive Medicine with the support of the Sid Richardson Foundation.

We had the pleasure and the privilege of having Secretary Schweiker come down to help us dedicate this new institute.

I mention this because I believe a great deal can be done in the private sector in developing and effecting better programs for prevention.

I would like to simply indicate that while the Federal Government can do a great deal to help this, I think Secretary Schweiker is quite correct in stating that it should be a facilitator. We need the full cooperation of the private sector to do this, and I think we can obtain that.

In our own program at Baylor, we have now established this Institute of Preventive Medicine entirely on the basis of private funding.

We hope in this institute to develop more research activities in prevention in developing better ways of determining what is the best method of prevention.

We certainly need more reliable data in a number of areas, since, as you know, considerable controversies exist in a number of areas of prevention, particularly in terms of nutrition, diet, exercise, and a number of other areas.

I hope in these hearings that there will come out of the discussions of various experts who will follow me the need for scientific and sound research data on preventive medicine and for the most efficient means of acquiring them, the need to disseminate to the public valid health data through greater awareness prevention on the part of physicians and the general public, and the need to discover more effective methods of improving health habits and of educating everyone to assume responsibility for personal health.

I emphasize that, because I think that no preventive program is going to succeed unless we can get individuals to assume greater responsibility for their own personal health.

I think this can be done. I think it is a question of how to develop the means of doing it.

Research in behavioral activities is expanding, and I think we will find out.

Mr. Chairman, I would just like to end with a quotation that I think is appropriate at this time. The quotation is this:

> We believe that the conditions of perfect health, either public or personal, are seldom or never attained, though attainable; that the average length of human life may be very much extended and its physical power greatly augmented; that in every year within this Commonwealth thousands of lives are lost which might have been saved; that tens of thousands of cases of sickness occur which might have been prevented; that a vast amount of unnecessarily impaired health and physical debility exists among those not actually confined by sickness; that these preventable evils require an enormous expenditure and loss of money and impose upon the people unnumbered and immeasurable calamities, pecuniary, social, physical, mental, and moral, which might be avoided; that means exist within our reach for their mitigation or removal; and that measures for prevention will affect infinitely more than remedies for the cure of disease.

That quotation appeared in a report by the Sanitary Commission of Massachusetts 130 years ago, in 1850. Let us hope that we can do ever better during the next 130 years than we have in the past to mitigate or eradicate preventable illness and premature death.

Thank you.

[The prepared statement of Dr. DeBakey follows:]

STATEMENT OF

Michael E. DeBakey, M. D.
Chancellor and Chairman of the Department of Surgery
Baylor College of Medicine
Houston, Texas

Before the
United States Senate Committee on Labor and Human Resources
July 16, 1981

Mr. Chairman, Members of the Senate Committee on Labor and Human Resources:

I should first like to express my appreciation and extend my congratulations to Chairman Hatch and the Senate Committee on Labor and Human Resources for providing this forum on preventive medicine for both the private and public sectors. I appreciate the opportunity to participate in this new Senate approach of encouraging the public to make its voice heard.

A few introductory comments are appropriate. Having been a practicing surgeon for more than forty years and having lectured and operated in virtually every major country in the world, I can state unequivocally that Americans have the best health care, the best physicians and allied personnel, and the best government support of health care in the world. That is not to say that we cannot do better, for we can in virtually every aspect of scientific and technologic medicine. All of us are aware, however, that funding for our most ambitious medical projects is not always easy to come by. Although we are not prepared to tell you how much or how little money to spend, we would like, during the next two days, to discuss how we hope some of the money will be spent. I am referring to the specific field of preventive medicine -- the subject of these hearings.

In one sense, we have been practicing prevention since the advent of modern medicine. Because the number of medications and methods of treatment was extremely limited when Hippocrates was practicing medicine, he relied on many of the do's and don'ts that preventive medicine comprises. Some argue that today we have too many medications and too many methods of treatment, many of which are costly and have not proved to be fully cost-effective. They advocate a return to simple approaches. But we must be selective in abandoning medications and other forms of therapy to avoid eliminating the beneficial ones that are cost-effective. The most logical approach is through prevention. Identifying the method of prevention, however, is complex and costs money. We must, therefore, spend some money to save much more money. Money spent teaching children to acquire good health habits, for example, will save society millions later in illness and disability.

With the help of the Senate staff and the Commission, we have assembled what we believe represents some of the best current thinking in preventive medicine. This group does not have all the answers, and we will not propose long-term strategies at this hearing. We do hope, however, to present the current status of preventive medicine and to recommend the direction we think will be most fruitful and economical for us to take.

Some years ago, several of us met with then Secretary of Health, Education, and Welfare, Elliot Richardson, to propose the development of a program for the control of hypertension. He was most receptive and, as a result of that proposal, a major screening program for hypertension was established in 1972, which has resulted in a remarkable decrease in death rates from stroke, kidney disease, and heart disease, and consequently a notable reduction in the overall crude death rates from all causes. Although much yet needs to be done to expand that program to provide more effective prevention of this very grave disease, we have made remarkable progress already. I hope that we can also extend prevention to other major causes of death and incapacitation.

Let us not delude ourselves. There are no magical formulas for preventive medicine. A primary principle, for example, involves correcting poor personal health habits, and we all know that changing entrenched behavior is extremely difficult.

Another serious problem is information overload. Health information has been expanding exponentially since World War II. In recent years, the public has been bombarded with health advice, but much of the information disseminated is poorly based or confusing. We need to make more sound, reliable data available to the public. Controversies about such matters as the ideal amount of sleep, diet and nutrition, harmful medications, and the advantages or disadvantages of jogging, for example, are hotly debated in newspapers and magazines and on television, but the result is further confusion of the public. Advocates of special diets are suing each other over their mutual criticisms made on nationwide television. Such confrontations may be considered newsworthy by the press, but hardly serve the public need.

As we proceed with these hearings, I hope you will keep in mind the following:

1. the need for scientifically sound research data on preventive medicine and for the most efficient means of acquiring them,
2. the need to disseminate to the public valid health data through greater awareness of prevention on the part of physicians and the general public, and
3. the need to discover more effective methods of improving health habits and of educating everyone to assume responsibility for personal health.

In other words, for prevention to be effective, we need valid research, sound information that is readily available and comprehensible to the layman, and effective methods of changing poor health habits. Let me end with an appropriate quotation:

> We believe that the conditions of perfect health, either public or personal, are seldom or never attained, though attainable: -- that the average length of human life may be very much extended, and its physical power greatly augmented: -- that in every year within this commonwealth, thousands of lives are lost which might have been saved: -- that tens of thousands of cases of sickness occur, which might have been prevented: -- that a vast amount of unnecessarily impaired health and physical debility exists among those not actually confined by sickness: --

> that these preventable evils require an enormous expenditure and loss of money, and impose upon the people unnumbered and immeasurable calamities, pecuniary, social, physical, mental, and moral, which might be avoided: -- that means exist, within our reach, for their mitigation or removal: -- and that measures for prevention will effect infinitely more, than remedies for the cure of disease.

That passage appeared in a report by the Sanitary Commission of Massachusetts 130 years ago (1850). Let's hope that we can do even better during the next 130 years than we have in the past to mitigate or eradicate preventable illnesses and premature deaths. Thank you.

Michael E. DeBakey, M. D.
Chancellor and
Chairman, Department of Surgery
Baylor College of Medicine
Houston, Texas

July 16, 1981

The **Chairman**. Thank you.

We have a rollcall vote. Rather than interrupt your testimony, I am going to ask Senator Quayle from Indiana to continue to chair while I run over and vote. Then I will try and get back so that he can get there in time and vote. That way, we will not interrupt these very important hearings.

If you will forgive me, I will leave.

Dr. **DeBakey**. Surely.

Senator **Quayle** [acting chairman]. Thank you very much, Dr. DeBakey.

I certainly would like to express my personal appreciation to you for coming here to testify from such a remote distance.

I have been a longtime admirer of the successes that you have had over the years. I appreciate your interest in coming before this committee.

I wonder if you would help us with a definitional problem that we are all in as we try to redefine where the Government should be involved and where it should not be involved.

Is there a way you could help us? What kind of scope and what role should the Federal Government play in preventive health medicine?

Dr. **DeBakey**. Senator Quayle, what I would prefer to do is perhaps give a little more thought to that very important question and to submit in writing to you some of my thoughts on this matter.

I have some definite thoughts in that regard. I would like to maybe have the commission help me in phrasing those thoughts more specifically.

I will say this at this time. I believe that there is a great deal that can be done in the private sector that has not been done.

I think that the Federal role in getting the private sector to do this can be that of facilitator and perhaps to stimulate the private sector to do more in this area.

In our own institution, Baylor College of Medicine, we are a private medical school. Though we do obtain funds from both the States and the Federal Government for support of certain activities, a large part of our funding is based upon private support which we obtain. I think it is important that we do so.

This Institute of Preventive Medicine that we established is based solely upon private funding.

In this institute, we hope to do certain types of research activities that may be funded by the National Institutes of Health. That is an example of how, in a sense, the private sector can work with the Federal Government toward the common goal and for the benefit of all the people.

I think that the importance of private sector involvement is the assumption of responsibility on the part of the individuals and the private groups to assume responsibility for health activities.

If you are going to ask the individual to assume responsibility for his personal health, then I think it is important to stimulate the private sector to, in a sense, expand that assumption to a larger group—to the people themselves.

I do not think you can expect the Government, in a sense, or any government, to assume that responsibility in terms of legislating personal health. The individual must assume that responsibility.

A large part of what can be done, in terms of preventive medicine and enhancement of good health, is dependent upon the degree of assumption of that responsibility by the private individual. I think they will do that if they are stimulated to do so.

If I may, I would like to submit to you in writing a more elaborate statement in answer to the question you have asked me.

Senator **QUAYLE**. I certainly would appreciate it, and I am certain that the committee would also; because we are really struggling with the proper balance of where the Federal Government should be involved and what kind of responsibility the private sector or the individual should assume.

Do you have any reaction as to why the private sector and, maybe more importantly, the individuals have not been stimulated into more of a posture of preventive medicine? Is there any cultural or behavioral or sociological aspects that we have missed in not stimulating more concern and sensitivity for something that everybody certainly talks about?

Dr. **DEBAKEY**. My own personal view is that this is largely the result of inadequate training and teaching at the very young level.

I think that good health habits begin very early in life. They have to be taught. In a sense, it is a part of self-discipline. Self-discipline comes from early training and early discipline, both in terms of the family and in terms of school.

I think in a sense we have neglected to emphasize the importance of this at the very early stages of life.

We have seen in our own area a greater effort being made in this regard. Baylor College of Medicine has a program with the public schools in Houston now—Harris County Independent School District—which is dedicated to improving the health activities of children in the grammar schools.

We have reason to believe that this program is producing some beneficial effects.

It is a kind of experiment, in a way. It is in the form of a research activity.

We are quite enthused about it. We have seen a good response, both on the part of the children and on the part of the parents who are involved in this experiment.

I think this is a big factor.

I cannot help but feel that if you begin very early in establishing good health habits, both in terms of nutrition and in terms of maintenance of good sanitation and hygiene, that the individual will learn to break these habits.

I think smoking, for example, is a good illustration of this. I think if you start very early teaching young children the dangers of smoking and if the parents themselves would not provide the role model of smoking for their children, we would have very little smoking.

Senator **Quayle**. One final question, and then we will have to go to our first panel.

Have you given any thought or taken any position on the debate that is going on in the Congress today about the block grant versus the categorical grant concept?

Perhaps more specifically, how could the block grant concept be of benefit in the area of preventive health maintenance?

Dr. **DeBakey**. I have not taken any definite position in the general area. I have, in a sense, taken a position in terms of the hypertension program, because this is a program I know something about and a program that we helped initiate.

I would be a little concerned that the block grant in that area would not be as effective, in terms of expanding the control of hypertension, largely because it is a national program. It cuts across, in a sense, all of the local activities.

I would hope that in that program, we would maintain the national aspects of the program.

I am not familiar with all the other programs to be able to comment about them.

Senator **Quayle**. In your written report to us on the role of the Federal Government, you might just want to get off into this concept of block grant versus categorical grant because they are interconnected. They are really interrelated.

Dr. **DeBakey**. Yes.

Senator **Quayle**. I am sure you understand the philosophical basis for both the programs.

Dr. **DeBakey**. Yes; I do.

Senator **Quayle**. As one Senator, I would certainly welcome and enjoy any comments or enlightenment you could give us.

Dr. **DeBakey**. I will keep that in mind.

Senator **Quayle**. Thank you very much.

We will move on to our first panel today which will provide a broad overview of the issues related to preventive medicine. We have Dr. Henderson, Dr. Mason, and Dr. Pesch.

Senator Hatch will return momentarily; but if I do not depart with a great deal of dispatch, I am going to miss that vote.

He will be back very shortly.

Dr. **Sundwall** [acting chairman]. Our first panel today, as mentioned, will give a broad overview of issues related to preventive medicine.

Dr. Donald A. Henderson is currently the dean of Johns Hopkins School of Public Health and Hygiene. He will discuss the role of academic institutions.

Dr. James Mason is the executive director of the Utah State Department of Health. He will talk about major killers—those diseases which are related to preventable causes and the importance of lifestyle.

Our third speaker is Dr. LeRoy A. Pesch. He is chairman of the Health Resources Corporation of America which is in Chicago. He will discuss the new roles of the public and private sectors in the health care market.

I would respectfully request, gentlemen, that we keep our comments to 6 to 8 minutes. The remainder of the comments can be submitted completely for the record at the completion of all the oral presentations of the panel.

Dr. Henderson, would you proceed?

STATEMENT OF D. A. HENDERSON, M.D., M.P.H., DEAN, SCHOOL OF HYGIENE AND PUBLIC HEALTH, JOHNS HOPKINS UNIVERSITY

Dr. **Henderson**. Thank you very much.

I will endeavor to try to constrain my remarks to 6 to 8 minutes and will summarize my statement.

I think at this time the interest in the potential of preventive medicine and health promotion is appropriate and urgent.

I think, to me, just how urgent is dramatized by the fact that the projected increase alone in medicare/medicaid expenditures during the coming year will be $9.4 billion. That is the increase alone—an increase which I believe is twice the amount now spent totally on all preventive medicine measures, as indicated in the figure quoted by Senator Kennedy.

I think the public generally recognizes that only marginal increments in the improvement of health are being made by enormously increased expenditures. It calls for a different strategy—a strategy, as I see it, of prevention of disease and disability.

There has been a lot said about this over the last 5 to 10 years, particularly. Yet I think it is very difficult to sell the idea that money needs to be spent in prevention to yield a result at the other end.

I am particularly mindful of this myself in a field I knew well of smallpox eradication in which 10 years ago the United States was spending $300 million a year in vaccination and quarantine.

The United States invested $26 million to try to eradicate the disease. Nothing is being spent now because the disease is eradicated.

It was very difficult to get that $26 million from the United States, and yet that investment is being repaid every 32 days and will be repaid every 32 days henceforth.

It is not a bad investment. I think in many areas of preventive medicine we do have the opportunity to make an impact of comparable scope. It is more difficult to measure, but I think the impact is as great.

I think we must realize that in the area of preventive medicine and health promotion—and we realize in academia that we have to reach out into the community to reach people who are not now ill—we need to reach people before they come to a physician's office seeking help.

I think I would say that the patient who is seen in the office of one of our colleagues in curative medicine can only be regarded as a failure of we in public health.

Fortunately, our job is to effectively put out of business our colleagues in curative medicine by preventing the disease.

Regrettably, we have many failures at this particular point in time. I would say that, in fact, there is a great deal yet to be known about what we can do and how we do it and how we reach out to the people concerned.

I would suggest at this time that what is needed is the uniquely different cooperative effort on the part of public and private agencies and especially including the academic institutions.

I would suggest at this time that there are comparatively few academic institutions which are really addressing the question of health promotion and disease prevention.

The schools of public health, a few departments of community medicine, and I think there are very few beyond that.

I think we need in this country a network of centers for health promotion and disease prevention based on the academic work. We know, insofar as the educational component is concerned, that in document after document, from the National Academy of Sciences to the recent studies of health personnel, there is a lack of personnel at every level in every key category. This is documented again and again.

Second, so far as new approaches are concerned, we know today of the vast array of chemical substances in the marketplace. We know the problems of toxic waste dumps. Yet we know very little about many of the effects that are there. We know very little about what to do to prevent some of the problems.

There is a world of work and research to be done, as Secretary Schweiker so aptly pointed out.

Finally, there is a real need for those of us in the academic world to work with those in the private agencies and the public agencies in operating programs to learn from doing, if you will. As we practice medicine and as we practice surgery in medical schools, we feel the need. I think there is a great importance in practicing public health.

I think, as Dr. DeBakey has highlighted hypertension programs, we must note that this has received high priority and many private physicians are doing a good deal about it.

Frankly, we are failing. There is comparatively little being done now, contrasted to what should be done and could be done. This really reflects on our ability and our knowledge of the strategies to reach out to those populations where the problem is the greatest to identify those needing the treatment and to assure that they get the continued treatment.

I would regret to say that although the academic institutions are important, I think there is a chasm today between the academic units and the community programs.

I think this reflects a factor of funds. Dr. DeBakey has referred to this in part.

In the medical schools today, faculty and residents take care of patients. This is partly reimbursed through the medicare/medicaid and other third-party insurance mechanisms.

No method today provides for the funding for the prevention of disease.

Our funding mechanisms are fully geared to the payment of the curative aspects of disease and not for prevention.

Thus for many of us, and myself in a school of public health, we find it difficult to find the funding to support our faculty and to support our research and to support our students, simply because of this difference in our orientation.

I would submit, Senator Hatch, that I think a new approach is needed in this field. I think we need much more than good words. I think we do need definitive approaches. I think one of the basic elements of this could be an evolving network of academic centers for health promotion and disease prevention which do work with State and local agencies, voluntary agencies, and work in a cooperative mode with them with a different method of financing and funding of these activities to provide this as an inducement on the scene.

Thank you.

[The prepared statement of Dr. Henderson and responses to questions sent to him follow:]

STATEMENT
OF

D. A. Henderson, M.D., M.P.H.
Dean, School of Hygiene and
Public Health
Johns Hopkins University

TO

THE COMMITTEE ON
LABOR AND HUMAN RESOURCES
U.S. SENATE

ON

PREVENTIVE MEDICINE AND HEALTH PROMOTION

Washington, D.C.
July 16, 1981

"PREVENTIVE MEDICINE AND HEALTH PROMOTION"

The Responsibility of Academic Institutions to Preventive Medicine and Health Promotion

The nation's health bill for the treatment of illness and for rehabilitation has been rising dramatically, but with only marginal incremental improvement in the overall health of its citizens. Health promotion and disease prevention programs have been increasingly heralded as being more cost-effective and tentative initiatives have been fostered. Just how tentative, however, is illustrated by the fact that the increase in Medicare-Medicaid expenditures each year now exceeds the total expenditure by the federal government for all public health service programs. A better strategy and a more determined commitment are needed.

The principal programs in preventive medicine and health promotion necessarily are concerned with groups and populations of people, primarily with people who do not voluntarily come to a physician's office seeking help. To take these programs into the community requires a unique, cooperative effort of disparate public and private organizations, both those identified as health agencies as well as community-based action groups. Strong academic centers with similar concerns are vital. Yet, only a handful of academic institutions, most notably the schools of public health and some departments of community medicine in medical schools, have so far played significant roles in helping to devise and to implement programs, in identifying new strategies and in educating leaders in the field. Their role is pivotal but, if we are to observe a real impact on the state of the nation's health, their activities must be greatly expanded and their community orientation better focused. The development of a national network of academic centers for health promotion and disease prevention would serve this purpose. Such centers would appropriately be charged with the responsibility for undertaking a three-part program of activities involving education of program leaders and staff, participation in operative programs with relevant public and private agencies and research to assess progress, to identify and measure risks and to devise new means to prevent disease.

The Professional Staff

The professional staff of such centers would necessarily differ greatly from the professional staff of a clinical department in a medical school. The professional staff of medical school departments understandably and appropriately is almost exclusively comprised of physicians. Although clinical specialists are today often deeply involved in implementing preventive programs, their orientation, training and practice is related to sick persons seeking relief. Their frame of reference and indeed their rewards are not related to the absence of disease in a population, be it their own community, their county or their state. Conversely, the success in preventive medicine is assessed by events which do not happen - by the numbers who might have become sick or disabled but who did not. To the extent which public health professionals fail in their efforts, clinical medicine becomes of greater importance.

The development and implementation of effective programs for the prevention of disease and the promotion of health requires professionals with many different types of training working closely as a team - statisticians and epidemiologists to determine possible causes of disease and the effects of programs to prevent them - engineers, chemists, physicists, toxicologists and biologists to assess possible environmental hazards and to devise cost-effective measures to reduce such risks - behavioral scientists and sociologists to determine community attitudes and to devise strategies and plans to assure participation in programs - economists and lawyers to consider alternative strategies and to develop policies which might be effectively implemented. Academic units of this scope and diversity are few in number and woefully inadequate in numbers of staff.

Educational Activities

The dearth of professional staff in the field of public health and preventive medicine has been documented in report after report ranging from studies by the Graduate Medical Education National Advisory Committee to those of the National Academy of Sciences. In notably critical supply are physicians trained in preventive medicine, epidemiologists, biostatisticians, toxicologists and engineers. Only the most modest efforts have so far been made to alleviate the manpower shortage. At the same time, our understanding of risks, of new and effective methods for intervention and of techniques for organization of community services, is rapidly changing. However, surprisingly few programs of continuing education are offered for those who are now actively engaged in disease prevention and health promotion activities. This is in stark contrast to the field of medicine, for example, in which continuing education programs are offered regularly and in many different locations. In part, this reflects the paucity of resources available to academic institutions for developing programs. In part, it reflects the lack of resources available to local agencies for in-service training of staff and the inability of the generally less well-paid professional staff in preventive medicine to finance their own continuing education program. In brief, a substantial effort will be required to educate requisite manpower and to provide for their continuing education in a rapidly evolving field.

Research

Effective programs in health promotion and disease prevention require knowledge of the causal factor or factors of disease and disability and knowledge of the most effective means to prevent exposure of the individual to the risk. For example, our understanding of the relative risks of the hundreds of new products now being used in this chemical age is still elementary; methods to discourage use of tobacco, alcohol and drugs are still discouragingly ineffective; screening and treatment programs for such as hypertension and cervical cancer have hardly begun to realize their potential. Much more could now be done to promote health and prevent disease but quite literally, we have only taken the first hesitant steps in a continent of potential opportunities still to be explored. Here, academic institutions, employing professionals trained in many different diciplines have a critical role to play in exploring cause and effect in research programs extending from basic biological changes to changes in groups in the total population.

Professional Practice

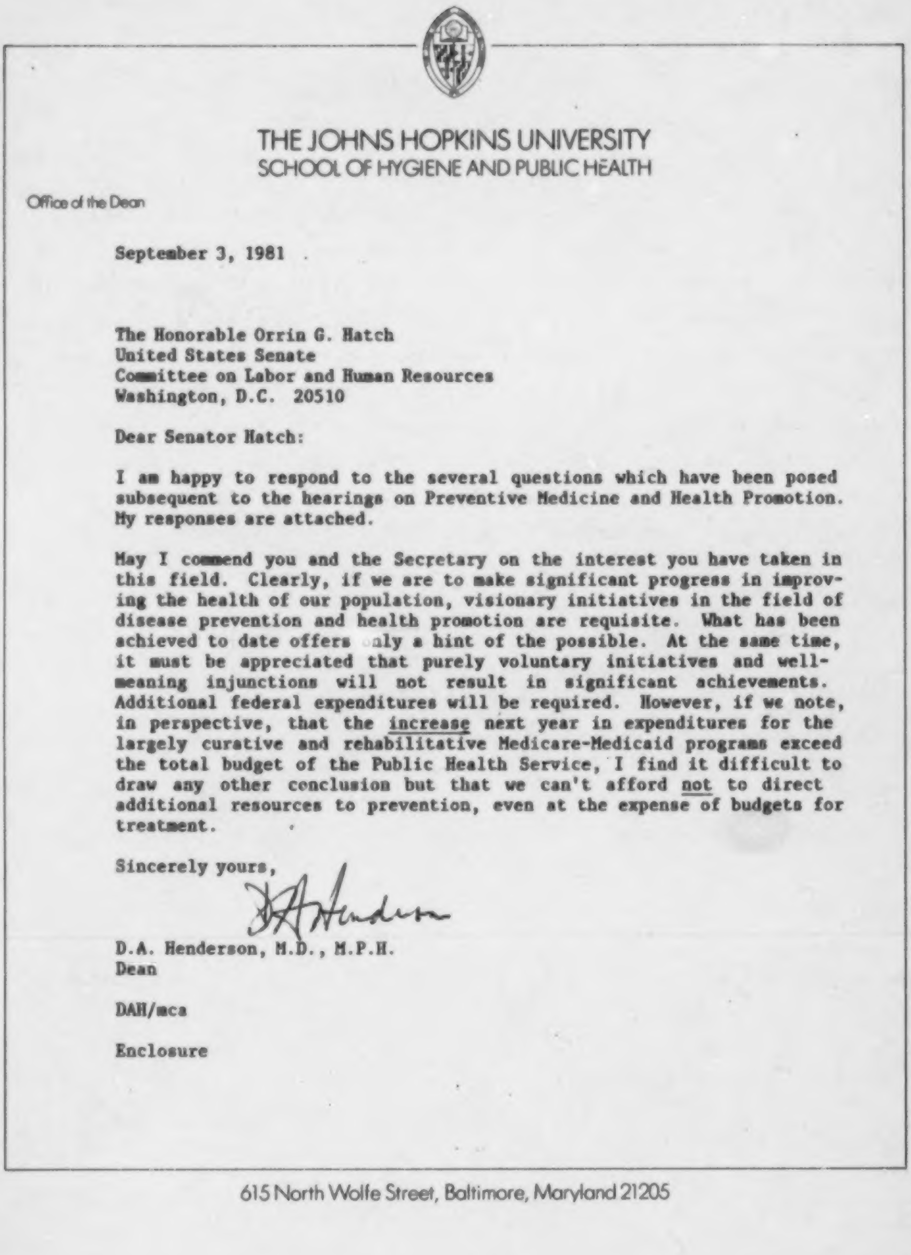
Professional groups in academic institutions who are concerned with health promotion and disease prevention need constantly to practice their profession, no less than surgeons in a department of surgery need constantly to practice their skills. In doing so, they are better able to teach by keeping in touch with community reality, to communicate new knowledge and techniques to those likewise engaged in public and private agencies, and to make observations which offer new insights or suggest new lines of population-based or laboratory research.

For effective programs in health promotion and disease prevention, it is essential that such activities be conducted in communities throughout the country. A simple, federally-mandated set of approaches will not suffice. Environmental problems differ greatly from one area to another, as do the populations of people living there. A problem and/or a solution in one area may or may not be applicable in another environment. Reno, Nevada and Cumberland, Maryland, clearly constitute different populations with different problems and different social attitudes. Regrettably, there remains today what may be characterized as a chasm between the academic institutions and state and local health agencies which is only rarely bridged. Until this chasm is bridged effectively and extensively, I foresee only limited progress being made in prevention programs. To achieve this will require that, by some manner, funds be identified to permit academic institutions, their faculty and students, to become involved in programs and the faculty, in turn, will need to appreciate that involvement in operating programs is essential to their professional academic careers. Notably, this is a problem which medical schools have faced and dealt with successfully. Patients in academic centers are cared for by faculty and students and payment for this care supports both faculty and resident staff in medical centers. In the field of public health and preventive medicine, there are examples of similar relationships, but they are far too few and the impact much too limited. Provision in federal, state, local and private agency program budgets for joint academic institutions and public/private sector initiatives in the delivery of services directed toward health promotion and disease prevention is a most urgent need.

Conclusion

The past decade has witnessed a remarkable resurgence of interest in health promotion and disease prevention. The need for such programs is voiced with increasing urgency. Special impetus to this effort was given by Assistant Secretary Cooper's "Forward Plan for Health" and by the 1976 National Conference in Preventive Medicine. Definitive steps to implement even a few of the many recommendations have yet to be taken. If we are serious in our intent, and the continuing spiral in medical care costs demands that we be so, special efforts will have to be made. Essential to the process is an expanding knowledge of what can and should be done and competent personnel to undertake the task. In any initiative such as this, academic institutions represent the essential foundation.

DAH/vrwb



THE JOHNS HOPKINS UNIVERSITY
SCHOOL OF HYGIENE AND PUBLIC HEALTH

Office of the Dean

September 3, 1981

The Honorable Orrin G. Hatch
United States Senate
Committee on Labor and Human Resources
Washington, D.C. 20510

Dear Senator Hatch:

I am happy to respond to the several questions which have been posed subsequent to the hearings on Preventive Medicine and Health Promotion. My responses are attached.

May I commend you and the Secretary on the interest you have taken in this field. Clearly, if we are to make significant progress in improving the health of our population, visionary initiatives in the field of disease prevention and health promotion are requisite. What has been achieved to date offers only a hint of the possible. At the same time, it must be appreciated that purely voluntary initiatives and well-meaning injunctions will not result in significant achievements. Additional federal expenditures will be required. However, if we note, in perspective, that the increase next year in expenditures for the largely curative and rehabilitative Medicare-Medicaid programs exceed the total budget of the Public Health Service, I find it difficult to draw any other conclusion but that we can't afford not to direct additional resources to prevention, even at the expense of budgets for treatment.

Sincerely yours,

D.A. Henderson, M.D., M.P.H.
Dean

DAH/mca

Enclosure

615 North Wolfe Street, Baltimore, Maryland 21205

Response to Questions

A fully effective, comprehensive disease prevention and health promotion program will necessarily require the active participation of many different groups and individuals rangng from community leaders and workers to voluntary organizations to industry, labor, city and state health departments and others. Disease prevention and health promotion programs inevitably must differ significantly from programs of curative medicine. This is often not well understood. The former requires that healthy or apparently healthy people be approached and persuaded of the need to submit to screening programs and immunization, of the need to change their lifestyles and of the need to alter the environment within which they live. Although there is a defined sickness-care structure to take care of people who become ill, there is at present no definitive structure to set in motion an effective and comprehensive disease prevention and health promotion program. There are some effective initiatives which embrace entire communities and there are many fragmented voluntary efforts, some well conceived and some based on wholly improved or even erroneous beliefs.

Changes in lifestyle are an important, although not the only, component of a program of disease prevention and health promotion. Community leaders and workers can and should play an important leadership role in promoting, advocating and facilitating lifestyle change. However, policies and alternative strategies for such change must be soundly established, community leadership must be provided guidance and training and systems for continuing evaluation of the success of the effort must be established. Academic centers could play a pivotal, central role in this effort. If this is not done, one can confidently forecast a series of ill-coordinated, often poorly conceived measures which will be more specifically directed to the middle and upper classes and not at the groups at highest risk, many of whom are the disadvantaged.

If we are serious in our intent to diminish the incidence of sickness, disability and premature death, a coherent plan and strategy is mandatory. Its foundation must be different and broader than that of the sickness-care system, although the medical community must play a role.

Because there is no model system to serve as a pattern, I would propose that perhaps ten Centers for Disease Prevention and Health Promotion be established (alternatively, the name Centers for Health Protection might be less cumbersome). Such Centers would be charged with the responsibility for establishing a close working partnership with state and local health agencies, voluntary organizations and community leaders in their respective areas, with developing comprehensive and agreed-upon strategies, with assessing the effect of alternative approaches and, ultimately, wth evolving comprehensive community programs. In brief, a partnership of government, academia and private agencies is foreseen. At the federal level, the Centers for Disease Control should provide a central focus for this effort.

So far as funding of the academic centers is concerned, I believe this should be regarded as a logical component of expenditures for Medicare and Medicaid, which are now heavily committed to sickness-care. In fact, the increase next year in costs of Medicare and Medicaid exceed the entire budget of the Public Health Service. Would it not make sense to increase our commitment to prevention, even to the extent of earmarking a percentage of Medicare-Medicaid funds to prevent illness rather than directing almost the whole of these funds to the provision of services in the sickness-care system?

The CHAIRMAN. Thank you so much, Dr. Henderson.

We are very happy to have our own Dr. Jim Mason here with us. We are looking forward to what you have to say, Jim.

We recognize the great work you do out in Utah.

STATEMENT OF JAMES O. MASON, M.D., EXECUTIVE DIRECTOR, UTAH DEPARTMENT OF HEALTH

Dr. MASON. Thank you, Senator Hatch.

It is an honor to be asked to participate in this hearing.

I believe the reason I was asked to speak is to show that health promotion and disease prevention really work and to use Utah as an illustration of that success.

We talk so frequently about what could happen. What we want to say today is that it has happened. It saves lives; it prevents disability and handicapping conditions; and disease prevention and health promotion saves money.

I would like to try to briefly illustrate how that has occurred.

Americans have worked hard to create a standard of living which is the envy of the world. However, we may have worked too hard. Current indicators point to the American lifestyle as the cause of over 50 percent of the years of life lost by death before age 65.

In Utah, approximately 44 percent of the years of life lost by premature death can be traced directly to lifestyle factors.

Of the three leading causes of death in Utah—cancer, heart disease, and motor vehicle accidents—lifestyle accounted for 37 percent, 52 percent, and 69 percent, respectively, of years of life lost before age 65.

In my written testimony, I have provided a series of charts. I am not going to spend time, because of the need to move on, in talking about each of these charts; but I would like to just make several pertinent points with regard to each one of them.

First of all, with regard to chart 1: We show that lifestyle is the No. 1 enemy, in terms of preventing disease and promoting good health, in Utah.

In chart 2, we show the allocation of resources between the various causes of death. The allocation of Federal and State funding in Utah toward lifestyle-enhancing programs, however, is in no way commensurate with the significance of this component as a cause of premature death and preventable death.

Lifestyle in Utah affects 44 percent of the causes of death; yet only 5 percent of State resources and 1.2 percent of Federal resources go to this area of concern.

On the other hand, real or theoretical improvement in the medical care establishment—the hospitals, the nursing homes, and the doctors' offices—could only at best produce a 12-percent reduction in the leading causes of death in Utah.

Yet this one element receives an 86-percent allotment of State funding and 90 percent of Federal funding.

This analysis is not necessarily intended to demonstrate that we should immediately take money that is going into the health care establishment and put it into health promotion and disease prevention. On the other hand, the inordinate increases in the cost of medical care—to cite medicaid and medicare as illustrations—these inordinate increases in costs must not be permitted to draw funding from health promotion and disease prevention.

I see that as a constant threat, both at the State and Federal levels.

One of the reasons for this is the large advocacy for the health care establishment. A mother who has not lost a baby due to diptheria or smallpox does not often go up to her legislature and lobby for immunization funds. However, if someone feels that a particular benefit is being taken away under medicaid or medicare, you see the hundreds and thousands of various advocacy and constituency groups that begin lobbying. There is a trend to draw funds from health promotion and disease prevention into the crisis side of medicine—the health care establishment.

I have another chart which compares Utah with the rest of the Nation. It shows in summary that Utah enjoys one of the lowest levels of heart disease, cancer, and the other leading causes of death, compared to national averages.

What I would like to say from this data that I have provided is that Utah has adopted a lifestyle which is pretty much what we hope to achieve on a national level.

In addition to what has happened with regard to lifestyle, Utahans tend to be conservative users of the medical care establishment. Both admissions and average length of stay for Utahans are lower than national or regional figures.

Although we do have a slightly higher cost per patient day, expenses per capita are lower than national figures.

The point I make in my written testimony is that in a State which is using less tobacco per capita, less alcohol per capita, and which is probably doing a little more than other States in terms of weight reduction, that we also are able to get along with considerably fewer hospital beds per thousand population. We also have fewer nursing home beds per 1,000 population age 65 and older.

These statistics are highly significant.

Utah's mortality rates, which are favorable compared to the national figures, are not favorable because we are utilizing the health care system more frequently. They are favorable because we are adopting these lifestyle changes that have been talked about by earlier speakers.

We would submit that if we will do things with regard to lifestyles, we cannot only improve our health but we can eliminate to a certain extent a lot of the utilization of our health care industry.

The impact of the teachings and the dietary restrictions which have been provided by the dominant religion in Utah was the basis for a published study by investigators at the University of Utah, College of Medicine.

Dr. Lyons, Dr. Gardner, and Dr. West indicated that Utah Mormons have one-third less cancer than non-Mormons residing in the State. Cancer rates for all Utahans are approximately 16 percent lower than the national average. Being Mormon, however, reduced this risk even further.

The more we can zero in on abstaining from the use of certain high-risk substances, the lower we can reduce the mortality to the leading causes of death, both in Utah and on a national level.

In summary, then, the Utah experience points to a marked improvement in mortality rates. This can be traced in large measure to a healthy lifestyle and a reduction of self-imposed risks, such as smoking and alcohol consumption, by major sectors of the population.

Utah also has a lower rate of utilization of medical facilities.

Despite the highest birth rate in the Nation, Utah ranks below the national figures with regard to infant mortality.

Utahans are younger and tend to live longer than their counterparts in other parts of the Nation.

These differences are related primarily to health promotion and disease prevention, rather than increased utilization of medical care facilities.

There is no correlation between the health of Utahans and increased use of medical facilities. Medicine and health are two different things. Increased use of medical facilities does not guarantee better health. However, better health can reduce the utilization of medical facilities and, thus, lower costs.

Were the Nation able to achieve the mortality rate of Utahans through appropriate changes in lifestyle, it can be conservatively estimated that annually over 284,000 lives could be saved based on 1978 Utah national statistics.

Likewise, if hospital utilization, as represented in patient days per thousand, could be reduced to the Utah age-adjusted figures, the Nation could save in 1 year $16 billion.

I point out that not only do we do away with premature death and not only do we eliminate some of the handicapping and crippling conditions, but we can save big dollars if we will put a greater stress on health promotion and disease prevention.

I might mention that Utahans are serious about disease prevention. This is evidenced by the fact that Utah has been free of measles for over 1 year, and that Utah children entering kindergarten have close to 100 percent adequate immunization for measles, rubella and mumps; 99 percent are adequately protected against polio, and 98 percent are adequately protected against diptheria, tetanus, and pertussis.

The Department of Health in Utah is currently finalizing the State's health policy document which will chart the course for Utah to further improve the health of its citizens, even in the face of anticipated massive in-migration due to the development of our vast energy resources.

We hope that we will not have a vast in-migration associated with MX development, which we perceive as a major threat to the world's public health.

The health policy that we are using in Utah basically follows the health field concept in ordering the State's priorities for resource allocation.

George F. Will in an article in Hospital Progress in October 1980 said it well, and I quote from him:

> The fundamental fiscal facts indicate that the primary net increase in public health for the foreseeable future will be—as in fact it has been if we properly understand the social history of public health—the result not of medicine but of reforms of individual behavior and improvements in individual living standards that are beyond the competence and the responsibility of the hospital-centered medical industry today.

In terms of recommendations, in order for the Nation to make significant improvements in the health of its citizens, it must set health promotion and disease prevention as major priorities on the national level.

The time has come to deliver action where in the past lipservice has been the stock in trade. Disease prevention activities must be maintained in current areas and strengthened and expanded in other areas.

We cannot become entangled in a morass of uncontrolled medical expenditures. Spending more and more millions for medical care will not improve the health of the Nation. There is a need for medical care to treat illness; there is a greater need for disease prevention to prevent illness and the need for medical care. The danger is in letting the powerful medical care establishment absorb money which could and should go toward health promotion and disease prevention.

There is an insatiable demand by the medical care establishment for more and more money. In the past, State and Federal resources were diverted from health promotion and disease prevention into the traditional channels of more and more medical care. I see this going on today at both the State and the Federal levels.

We must prioritize our human and financial resources and capabilities to optimize—and I underline that—the health promotion and disease prevention initiatives.

It is also time to make disease-causing substances pay their fair share toward prevention. Increased taxes from tobacco and alcohol revenues could provide significant increases in the effectiveness of preventive measures.

For instance, how much more progress could be made in research and implementing and deciding how to motivate people through the use of millions of dollars currently paid by the American taxpayer to subsidize the production and promotion of a known carcinogen—tobacco?

If we expect to see any further improvements in the health of America, we must get serious about health promotion and disease prevention.

Utah is showing that effective disease prevention and health promotional activities can affect the health of individuals.

The success stories, the precedents for effective prevention, are documented. Through effective partnerships between the public and private sector, greater progress can be made for the betterment of all Americans.

The States, such as Utah, are leading the way.

We do not suggest the Federal Government take over such programs, but we hope that the Federal establishment will provide leadership, courage, determination, ongoing financial support, and flexibility in the use of programs so that States can carry out meaningful activities tailored to the unique needs of their own populations.

Thank you.

[The prepared statement of Dr. Mason and responses to questions sent to him follow:]

Major Health Problems and the Current Evidence for Preventive Conditions Health Promotion/Disease Prevention in Utah

James O. Mason, M.D., Dr.P.H.
Executive Director
Utah Department of Health

Americans have worked hard to create a standard of living which is the envy of the world. However, we may have worked too hard. Current indicators point to the American lifestyle as the cause of over 50 percent of the years of life lost by death before age 65. In Utah, approximately 44 percent of the years of life lost by premature death can be traced to lifestyle factors.

Of the three leading causes of death in Utah, (cancer, heart disease and motor vehicle accidents), Lifestyle accounted for 37 percent, 52 percent and 69 percent respectively of years of life lost before age 65 (Note Chart 1).

The allocation of federal and state funding in Utah toward Lifestyle enhancing programs (prevention and promotion), however, is not commensurate with the significance of this component as a cause of premature death.

Lifestyle affects 44.21 percent share of the causes of death in Utah, yet only 5 percent of state and 1.2 percent of federal resources go to this area. On the other hand, the Medical Care Establishment accounts for only a 12.4 percent share of the cause of death while this one element receives an 86 percent allotment of state funding and 90.6 percent of federal funding (See Chart 2). This analysis is not intended to demonstrate a need to shift resources from the health care organization but to emphasize that allocation of new resources should take this factor into account.

These disporportionate figures emphasize the need to build a public consciousness for health promotion and disease prevention. There is a growing national need to alert individuals to their personal responsibility for wellness.

(For presentation at Public Hearing co-sponsored by Senator Hatch and Commission for Responsible Health Policy, July 16, 1981, Washington, D.C.)

By wellness I refer to the broad definition of wellness which extends beyond the mere absence of disease or illness. "The objective of wellness is not merely to avoid illness or to prolong life: rather, its objective is to enhance the quality of a person's life through activities that are designed to continually improve the state of his physical, mental, emotional and spiritual being." (AHA)

Utah, Unique In The Union

In comparing the demographic and statistical charcteristics of Utah with the nation, and its neighboring state of Nevada in particular, several unique characteristics become apparent. The 1980 census indicated a population of 1,461,037 for Utah, 799,184 for Nevada and 226,504,825 for the nation. Utah is proportionately younger, particularly under five years of age. This carries through, however, through age 24. Nevada has proportionately more residents in the middle ages, 25-64. The U.S. has proportionately more elderly persons than either Nevada or Utah. Utah listed the lowest median age in the Nation, 24.2, Nevada was at 30.3 and the national median age was 30.0.

Although Utah is generally considered a rural state, 79 percent of Utahns live in urban areas. This compares with 81 percent of Nevadans and 73 percent of all Americans. (Chart 3)

Utah's birthrate leads the Nation at 29.0 per 100,000. The national figure is 15.8 with Nevada at 16.9. Utah's abortion ratio (number of abortions per 1,000 live births) for 1978 was 81 with Nevada at 431 and the national figure at 347.

Utahns tend to be conservative users of medical care facilities. Both admissions and average lengths of stay for Utahns are lower than national or regional figures. Although Utah does have a slightly higher cost per patient day, expenses per capita are lower than national figures. (Chart 4)

Utah has fewer hospital beds per 1000 population (Utah 3.2, Nevada 4.1 and U.S. 4.6). There are fewer nursing home beds per 1000 population age 65 and older (Utah 16 and U.S. 60.7). For physicians there are 153 MD's per 100,000 Utahns, 119 for 100,000 Nevadans and 163 per 100,000 Americans. (Chart 5)

There is a marked difference in utilization rates of the medical care system for Utah and the rest of the Nation. Interestingly, Utah has, with its lower hospital utilization rates, lower mortality rates for the major causes of death and a lower infant mortality rate despite the highest birthrate in the nation.

Utah's mortality rates (1978 crude rates) are favorable compared to the national and Nevada figures. For all causes of death, Utah was at 599.1 per 100,000 with Nevada at 759.2 and the U.S. at 883.4. The most significant differences are noted in heart disease (Utah 198.9, Nevada 246.7, U.S. 334.3) and malignant neoplasms (Utah 97.8, Nevada 158.6, U.S. 181.9). (Chart 6)

The 1978 age specific figures (number of deaths for a given age per 1,000 persons) shows Utah equal to or below national rates until age 85 and over except for a .2 difference in the 1-4 age grouping.

The state's infant mortality rate points to Utah's leadership in preventive health in this key area despite the highest birth rate in the nation. The 1979 statistics show a Utah rate of 10.7 deaths per 1000 while the nation is at 13.0 per 1000. A significant sidelight to these figures which further emphasize the benefits of health promotion and disease prevention is in the infant death rate for teen mothers. This rate is significantly higher in Utah with a rate of 16.9/1000 which is higher than the national average. However, for a pregnant teenager in the State's High Risk Pregnancy Program, the infant death rate in the first six years of operation has been 7/1000. This is an eloquent statement on the rewards of organized perinatal care, one aspect of health promotion and disease prevention.

Utah is unique in the Union in many characteristics which lend itself to disease preventive and health promotional activities. Primary among these factors is that approximatey 70 percent of Utahns belong to the Church of Jesus Christ of Latter-day Saints (LDS/Mormon). The LDS Church has strict prohibition against tobacco, alcohol, coffee and tea. It also emphasises a healthy, wholesome lifestyle.

The impact of the teachings and dietary restrictions of the LDS Church on [illegible] health of Utahns was graphically illustrated with research by Dr. J. L. Lyons, Dr. J. W. Gardner and Dr. D. W. West as published in the Journal of the National Cancer Insitute, November, 1980.

Their study indicated Utah Mormons have a third less cancer than non-Mormons residing in the state. Cancer rates for all Utahns are approximately 16 percent lower than the national average. Being Mormon, however, reduced this risk even more.

For the period from 1967 through 1975 the cancer rate for Mormon males in Utah was 253 per 100,000 population. The rate for non-Mormon men was 345 per 100,000. Mormon women showed a rate of 205 per 100,000 and for non-Mormon Utahns it was 304 per 100,000. In addition, cancers associated with smoking showed an incidence in Mormons about half that of non-Mormons.

Ascribing to a certain set of beliefs does not prevent cancer or promote health. But adhering to specific lifestyle restrictions, moderations and practices does affect an individual's and the community's overall health and wellness.

Utah's risk prevalence can be contrasted with national rates. A 1980 survey showed that 18.5 percent of adult Utahns smoke cigarettes, 37.3 percent drink alcohol, 69.9 percent reported no regular physical fitness program 82 percent do not wear seatbelts and 46 percent were overweight. (Chart 7)

Researchers have noted an interesting difference in smoking and alcohol consumption by religious affiliation which highlights the importance of lifestyle and prevention for overall health. Members of the Mormon church reported low rates of alcohol (16.5 percent) and tobacco (8 percent) consumption. In contrast, non-LDS Utahns reported levels of consumption similar to the U.S. rates: 62 percent drank alcohol and 38 percent smoked cigarettes. However, among non-LDS women, 41 percent smoke while only 30 percent of U.S. women smoke.

Summary

In summary, the Utah experience points to a marked improvement in mortality rates. This can be traced in large measure to a healthy lifestyle and a reduction of self-imposed risks such as smoking and alcohol consumption by major segments of the population. Utah also has a lower rate of utilization of medical facilities. Despite the highest birth rate in the Nation, Utah ranks below the national figures with regard to infant mortality, Utahns are younger and tend to live longer than their counterparts in other parts of the nation.

These differences are related primarily to health promotion and disease prevention rather than increased utlization of medical care facilities. There is no correlation between the health of Utahns and increased use of medical facilities. Medicine and health are two different things and increased use of medical facilities does not guarantee better health; however, better health can reduce the utilization of medical facilities and thus lower costs.

Were the Nation able to achieve the mortality rate of Utah through appropriate changes in lifestyle, it can be estimated that over 284,000 lives could be saved (based on 1978 figures). Likewise, if hospital utilization as represented in patient days per 1000 could be reduced to the Utah figures of 721 from 1,180 for the Nation, and given the average cost per patient day in the U.S., over 16 billion dollars could be saved in the difference through decreased utlization.

The success in Utah toward health promotion and disease prevention go beyond the influence of the stage's dominant religion. It is a general mood of its citizens toward self-reliancy (including responsibility for their own health), and the positive outlook of a health oriented population. There is also good cooperation between the public and private sector for health promotion as evidenced in the 1980 Good Health Fair which was sponsored by the Department of Health and the Smith's Food Management Corporation. This good health fair was the largest held in the nation and attracted over 50,000 people.

Utahns are serious about disease prevention. This is evidenced by the fact that Utah has been free of measles for over one year and that of Utah children entering kindergarten, close to 100 percent have adequate immunizations for rubeola (measles), rubella and mumps; 99 percent are adequately protected against polio and 98 percent are adequately protected against diptheria, tetanus and pertussis.

The Department of Health is currently finalizing the state's health policy document which will chart the course for Utah to achieve its goals and objectives for the health of Utahns in the face of anticipated massive in-migration. The health policy basically follows the Health Field Concept in ordering the state's priorities for resource allocation.

General Philosophy

The direction and thrust of national efforts for disease prevention often create more smoke than substance in achieving the desired results. For example, the nation has experienced a significant reduction in air pollution from coal smoke during the past 20 years. This change was related in part to substitution of natural gas and oil for coal, and partly to Federal requirements limiting emissions from coal-fired plants. This change has produced cosmetic changes in the appearance of cities; however, there has not been a corresponding reduction in mortality from pulmonary disease. Cancer of the lung and chronic obstructive lung disease are still responsible for a heavy toll of disability and death. Data clearly suggests that only a small part of the total cancer burden can be directly related to industrialization in a general sense, or to diffuse exposure in a general population.

Nevertheless, the evidence of the relationship of cigarette smoking to chronic obstructive pulmonary disease continues to mount. There is also a considerable increase in the rate of death from coronary disease in cigarette smokers.

In view of the lethality of cigarettes and the relative unimportance of coal smoke as a cause of death, why are billions of dollars being spent to avoid air pollution from coal, while the tobacco industry is being subsidized by the government, and only a pittance is being spent by government to counteract the perverse influence of ads in newspapers, magazines and billboards sponsored by the tobacco industry.

"The fundamental fiscal facts indicate that the primary net increase in public health for the forseeable future will be---as in fact it has been, if we properly understand the social history of public health---the result not of medicine but of reforms of individual behavior, and improvements in individual living standards that are beyond the competence and the responsibility of the hospital-centered medical industry today." (George F. Will, Ph.D., Risk-Free Society, Hospital Progress, October, 1980, pp. 43-66)

Recommendations

In order for the nation to make significant improvements in the health of its citizens it must set health promotion and disease prevention as major priorities on the national level. The time has come to deliver action where in the past lip service has been the stock in trade. Disease prevention activities must be maintained in current areas and strengthened and expanded in other areas.

We cannot become entangled in the morass of uncontrolled medical expenditures. Spending more and more millions for medical care wil not improve the health of the nation. There is a need for medical care to treat illness; there is a greater need for disease prevention to prevent illness and the need for medical care. The danger is in letting the powerful medical care establishment absorb money which could and should go toward health promotion and disease prevention.

There is an insatiable demand by the medical care establishment for more and more money. In the past. state and federal resources were diverted from health prmotion and disease prevention into the traditional channels of more and more medical care. We must prioritize our human and financial resources and capabilities to optimize the health promotion and disease prevention initiatives.

It is also time to make disease causing substances pay their fair share toward prevention. Increased taxes from tobacco and alcohol revenues could provide significant increases in the effectiveness of preventive measures. For instance, how much more progress could be made in cancer research and disease prevention through the use of the millions of dollars currently paid by the American taxpayer to subsidize the production and promotion of a known carcinogen?

If we expect to see any further improvements in the health of American, we must get serious about health promotion and disease prevention.

Utah is showing that effective disease prevention and health promotional activities can affect the health of individuals. The LDS church's dietary restrictions and positive lifestyle show marked success through lower cancer rates for men and women. The success stories, the precedents for effective prevention are documented. Through effective partnerships between the public and private sector greater progress can be made for the betterment of all Americans. The states, such as Utah, are leading the way. We do not suggest the federal government "take over" such programs, but provide the support and flexibility to the states to carry out programs tailored to the unique needs of their own populations.

Thank you.

Chart 1

An Epidemiological Model for Health Policy Analysis

Leading Causes of Death	Proportional Allocation of Risk Factors for Each Cause of Death to Each Health Field[3]				
	Relative Weight	Medical Care Establishment	Lifestyle	Environment	Human Biology
Cancer	16.4%	10	37	24	29
Heart Disease	16.0	12	52	9	27
M. V. Accident	16.1	12	69	18	1
Certain Diseases of Early Infancy	14.1	27	30	15	28
Birth Defects	10.4	6	9	6	79
Other Accidents	9.9	14	51	31	4
Suicide	6.5	3	60	35	2
Stroke	2.7	7	50	22	21
Alcoholism	2.7	3	70	9	18
Influenza and Pneumonia	2.4	18	23	20	39
Diabetes	1.9	6	26	0	68
Bronchitis, Emphysema, and Asthma	0.9	13	40	24	24
TOTAL[2]	100.0%	12.4	44.1	17.8	25.3

[1] Percent of years of life lost before age 65 from the cause of death in relation to the total years of life lost from the 12 causes of death listed.

[2] Weighted average based on the relative weight of each cause of death.

[3] G. E. Alan Dever, "An Epidemiological Model for Health Policy Analysis," Social Indicators Research 2 (1976) pp. 453-666.

Chart 2

Comparison of
State Expenditures
Federal Expenditures and
Major Causes of Death

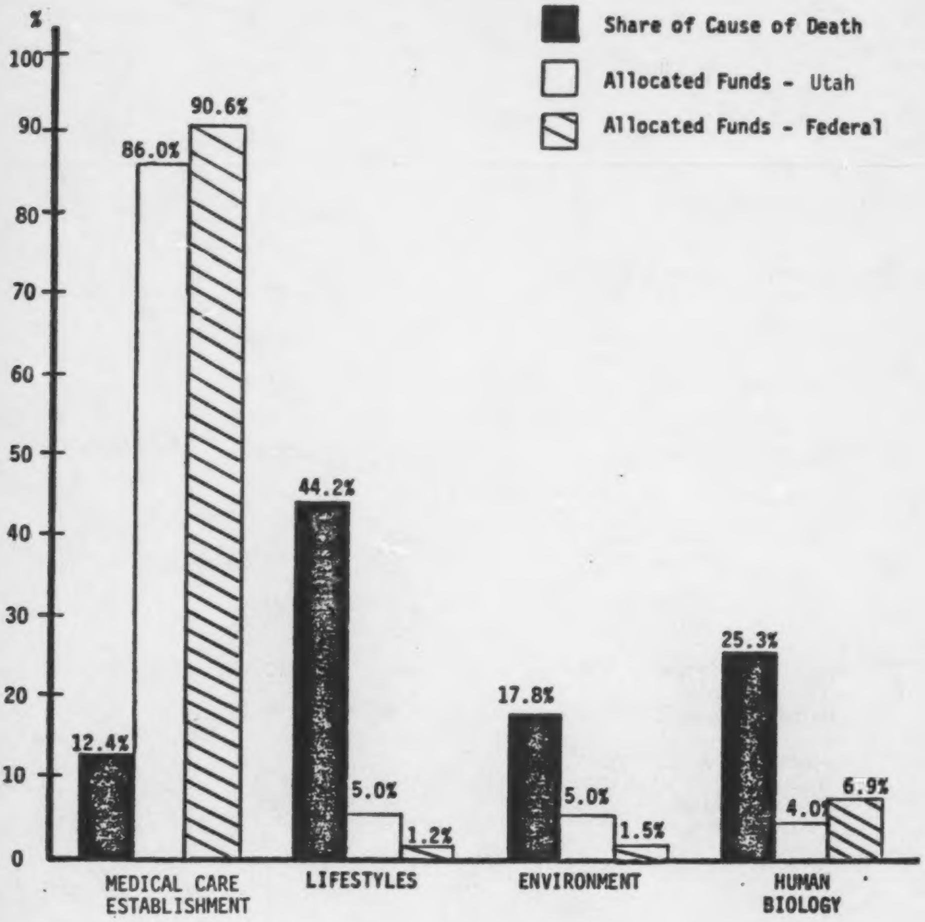


Chart 3

Demographic Characteristics	Utah	Nevada	United States
Total Population - April, 1, 1980	1,461,037	799,184	226,504,825
1980 Age Distribution (Percent)			
Under 5	13.0	7.0	7.2
5-14	18.6	14.6	15.5
15-19	9.5	8.8	9.3
20-24	10.7	9.7	9.4
25-44	26.2	31.2	27.8
45-64	14.6	20.5	19.7
65+	7.5	8.2	11.3
Percent of Population			
Living in Urban areas	79.0	81.0	73.0
Persons per Square Mile of Land	18.0	.07	64.0
Percent of Land in Farms	20.0	15.0	46.0
Live Birth Rate (1979)	29.0	16.9	15.8
Abortion Ratio (Number of Abortions/1,000 Live Births (1978)	81	431	347

Demographic Characteristics	Utah	Nevada	United States
Average Lifetime in years at birth			
1969-1971 - White Male	69.54	66.02	67.94
- White Female	76.60	73.73	75.49
1977 - White Male	70.6	N.A.	70.0
- White Female	77.4	N.A.	77.7
Per Capita Income (1980)	$7,485	$10,458	$9,458
Persons per Household (1980)	3.20	2.59	2.75
Educational Attainment Percent High School Graduates Ages 18-24			
1980 Males	80	76	78
1980 Females	85	81	80
Median School Years Completed	12.8	12.6	12.5

Chart 4

Comparative
Community Hospital
Utilization Rate
1979

	Admissions Per 1,000	Average Length of Stay	Patient Days Per 1,000
Utah	141	5.13	721
Region	138	6.50	898
U.S.	156	7.56	1,180

Source: Hospital Statistics, AHA, 1980.
Utah State Department of Health.

Comparative
Hospital Expenses
1979

	Expenses Per Day	Expenses Per Admission	Expenses Per Capita
Utah			
MCR*	$258	$1,306	$214
AHA*	231	1,211	194
Region (AHA)	221	1,440	232
U.S. (AHA)	217	1,641	294

Note: Expenses are adjusted for outpatient utilization.

*Source: Hospital Statistics, American Hospital Association (AHA) 1980.
Medicare Cost Reports (MCR), 1979.

Chart 5

Medical Care System Data

	Utah	Nevada	United States
(1978) Number of Hospital Beds/1000 population	3.2	4.1	4.6
(1980) Number of Persons/Physician	680	875	609
(1976) Number of Physicians per 100,000 pop.	153	119	163
(1976) Number of Nursing Home Beds	6,784	N.A.	1,389,900
per 1,000 population age 65+	16	N.A.	60.7
(1978) Occupancy Rate for Hospital Beds (%)	63.5	66.1	73.2
(1978) Average Length of Stay (Days) in Hosp.	5.1	6.5	7.6

Age/Sex Specific Hospital Utilization Rates 1977

	U.S.		Utah	
	Adm/1000	Days/1000	Adm/1000	Days/1000
Males				
0-14	81	350	88	332
15-44	98	621	76	378
45-64	195	1,679	160	1,044
65+	397	4,282	340	2,692
Females				
0-14	65	265	72	259
15-44	218	1,065	229	853
45-64	201	1,696	178	1,209
65+	359	4,068	312	2,417
Total	163	1,183	147	752
Utah Adjusted U.S. Population:			157	847

Source: Hospital Discharge Survey, National Center for Health Statistics.
1977 Patient Origin Survey, Utah State Department of Health.

Chart 6

Mortality	Utah	Nevada	United States
1978 Age Specific Mortality (number of deaths at that age per 1,000 persons of that age)			
Under 1	11.4	Not	14.3
1-4	0.0	A	0.7
5-14	0.3	V	0.3
15-24	1.2	A	1.2
25-34	1.2	I	1.4
35-44	1.9	L	2.4
45-54	4.6	A	6.1
55-64	11.4	B	14.2
65-74	25.1	L	30.3
75-84	63.1	E	71.9
85+	182.7		147.0
Total	6.0	7.6	8.8

1978 Crude Mortality Rates	Utah	Nevada	United States
All Causes	599.2	759.2	883.4
Heart Disease	198.9	246.7	334.3
Malignant Neoplasms	97.8	158.6	181.9
Cerebrovascular Diseases	56.5	72.9	80.5
Non-Motor Vehicle Accidents	26.8	30.0	24.4
Motor Vehicle Accidents	29.2	43.4	24.0
Suicide	12.8	24.8	12.5

Chart 7

Risk Prevalence: Utah Contrasted With U.S.

Risk Factor	% Utahns	% U.S.
Smokers	18.5	33.0
Alcohol User	37.3	67.0
No Regular Fitness Activity	69.9	65.0
Do Not Wear Seatbelts	82.0	89.3
Overweight:		
Men	23.8 (20.2)	32.1
Women	33.0 (27.1)	36.4

The Lyon Colon Cancer Control data which was obtained during 1977-1979 using a probability sample of state residents who responded to a random digit dialed telephone call and a subsequent interview. This analysis includes 539 individuals who were compared to colon cancer cases for various risk factors.

Scott M. Matheson
Governor

STATE OF UTAH
DEPARTMENT OF HEALTH
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

1896

James O. Mason, M.D., Dr.P.H.
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DIVISIONS
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September 9, 1981

Honorable Orrin G. Hatch, Chairman
Committee on Labor and Human Resources
United States Senate
Washington, D.C. 20510

Dear Senator Hatch:

I appreciated very much the opportunity to testify in the Senate Hearings on Preventive Medicine and Health Promotion. I am pleased that you have demonstrated interest in this most important issue. I sincerely hope that positive steps can be taken to demonstrate a clear federal policy directed at Preventive Medicine and Health Promotion.

In response to the questions submitted concerning my testimony I offer the following:

1. "Dr. Mason, given your impressive data on the contribution of lifestyle to the health status of Utahns, why do you state that your analysis is not intended to demonstrate a need to shift resources from the medical care establishment?"

The data I presented demonstrated a high level of resource allocation to the medical care establishment and a low mortality level associated with deficiencies in the medical care establishment.

The data also showed a lower level of resource allocation to "lifestyle" programs and a high mortality associated with lifestyle risk factors.

One's initial reaction is to suggest that resources be shifted from the medical care establishment to lifestyle programming. However, it may very well be that the reason for the low morality associated with the medical care establishment is because of the high level of resource allocation.

It may be possible to do some shifting until we find the level of the greatest marginal return in terms of the resources going to the medical care establishment. However, at the present time we do not know where that level of resource allocation is. The purpose of the analysis that I presented was to demonstrate that additional resource allocation should be focused on lifestyle programming where there is a significantly greater potential to impact existing mortality.

2. "Dr. Mason, you stated that the danger confronting America's health situation is in letting the powerful medical care establishment absorb money which could and should go toward health promotion and disease prevention. How can we present this from happening? What are your specific recommendations on how to prioritize our resources and capabilities to optimize health promotion and disease prevention?"

I would recommend the following:

a. The development of a national policy to eliminate cigarette smoking. This might include elimination of tobacco subsidies, the implementation of a comprehensive strategy to offset the financially powerful influence of the tobacco industry and consumer programs aimed at preventing the onset of cigarette smoking.

b. The development of a national policy to control health costs through a strategy that would encourage price sensitive competitive markets in the medical care delivery establishment. We cannot expect to gain additional resources for health promotion and protection so long as the medical care establishment continues to consume additional resources at the present rate.

c. The development of a national policy that would encourage the establishment of strong economic incentives for Americans to live healthy life-styles. Individuals who choose to live unhealthy life-styles should be forced to pay the full costs associated with the consequences of their decisions. Such incentives might include a requirement that rates for health and life insurance be actuarily determined based on the actual voluntary health risks assumed by different segments of the population. Other economic incentives that would promote healthy life styles should be thoroughly explored.

3. "Dr. Mason, would you, if you could, earmark any increased taxes from tobacco revenues for preventive medicine research?"

> I would recommend the elimination of tobacco subsidies and the use of this revenue for preventive medicine research. I would also support earmarking increased taxes from tobacco revenues for the same purpose.

I hope the above information is useful to you. Please let me know if I can be of further assistance.

Sincerely,

James O. Mason, M.D., Dr.P.H.
Executive Director

The CHAIRMAN. Thank you, Dr. Mason.

Dr. Pesch, we will be happy to take your testimony next.

STATEMENT OF LEROY A. PESCH, M.D., CHAIRMAN OF THE TASK FORCE ON HEALTH ECONOMICS, THE COMMISSION FOR RESPONSIBLE HEALTH POLICY, AND CHAIRMAN AND CHIEF EXECUTIVE OFFICER, HEALTH RESOURCES CORPORATION OF AMERICA

Dr. PESCH. Thank you, Mr. Chairman.

The time is slipping away. I know there are others who have urgent messages to bring to this committee in their testimony.

My responsibility today, however, is to talk about health economics in relationship to programs of prevention. This is a very big area.

I want to say at the outset that I am not presenting myself today as a health economist.

Most of the consequences of the economics of health, however, are brought before us every day. They are emphasized in newspapers and other kinds of public documents.

Clearly the expenditures for health care in this country are reaching vast sums of money. We are now currently spending about $200 billion on health care. It has been projected that within the next decade, if we continue to do what we are doing, that we will come very close to $1 trillion in terms of health care expenditures.

I am not really testifying today in any other role—other than as a concerned American citizen—concerned as all American citizens are. They are reflective of my 25 years of experience in the health field.

Essentially, I am here on behalf of all of the American citizens who are crying out for and demanding easier access to health services, appropriate and rational application of modern technology, and services that can be made available at reasonable cost.

What we are paying for, on the other hand, is a system which is not responding necessarily to those demands or needs. Rather we are paying for an illness system. We are paying the economic bill for illness in our society.

Unfortunately, neither the taxpayers nor the Government in all of its wisdom can figure out how to pay that bill that the health care industry generates.

What we are really saying is that as the costs of health care approach 10 percent of our gross national product, none of us really know how to come to grips with that problem. Few of us are capable of even operating in full recognition of the realities of that health care bill, in terms of the economic scarcity of resources to pay for it.

This country can no longer assume an uncontrolled increase in its health care debts, as pointed out by Dr. Mason and others and will be emphasized by others as we go along.

The critical state of our economy, however, demands an immediate response. These critical problems of our time can no longer be discussed behind the political rhetoric that they so constantly hide behind. Certainly we need to face the facts and the reality of it.

To get out of this situation we really need leadership. We need vision and wisdom, and we need to approach this problem without narrow partisanship for any vested interest, save that which in the long run preserves the best of our medical care system, which is excellent, and also serves the best interests of most of the people.

Unfortunately, we have built a system which is out of control. It is a system which needs to be restructured in order to have economic reality.

Certainly the experience of the last several years indicates that there are no easy solutions to the problem of rising medical care costs.

We can talk about the impact of prevention and we can talk about the impact of control, but it is a fact that cost controls operating in the early 1970's, the voluntary programs put forward by the health care industry itself in the last few years, attempts to control costs through Government regulation and through health planning legislation by professional standards review, and by applying legislation to stimulate alternate forms of delivery, including HMO's have all proven ineffective in slowing the cost increases.

The cost increase is still upon us, and the cost of that health care bill is still increasing at 12 percent. The impact upon Government sources is apparent to all of us.

As long as we persist in defining health in unlimited terms and insist that every citizen in this society has a constitutional right to health care, costs will inevitably increase and spiral upward.

This narrow concept of health, as has been pointed out by Dr. Mason and others, is based on the eradication of all illness at whatever cost. Its orientation is toward illness.

It loses sight of the disparities and incidents and relative disability caused by various diseases and different individuals and groups of people.

Thus, in spite of our efforts and in spite of the application of enormous funds, entire segments of our population feel disenfranchised by what is a seemingly insensitive system.

I do not want to talk about that system and I do not want to talk about the consequences of illness, because that would just be a reiteration of facts which have already been presented to this committee.

I want to talk instead about the economy of wellness, which is really the direction the future must take to accomplish cost control and effective distribution of services to those who need them most.

I believe we must seek a more modest set of goals and a much more sensitive setting for the people of this country. To do that means that individuals, both singly and collectively, must stop demanding that the system respond to their every desire and that the Government will pay for that cost.

In order to bring about the fundamental change in restructuring the health care system in this country, two facts need to be promulgated and accepted by each of us—not by individuals but by each one of us.

First, at the present time, in spite of the vast amount of information which has been gained in technologies developed over the past 25 years, we still do not know enough to prevent or cure most of the major diseases that afflict us.

Second, the great majority of people born in this country today, by statistics and by evidence, are really born healthy. The life expectancy of those born is greater than ever.

If each one of us would assume more individual responsibility, as the people in Utah do, obviously, in relationship to our own health, we could improve dramatically our chances of surviving, live in a world with a higher quality of life, and decrease the expenditures on the curing and the prevention of illness.

If each of us were to make such a personal commitment, I believe a system could emerge wherein knowledgeable people concerned about their well-being could avail themselves of information and freely accessible services of guaranteed good quality with minimal financial barriers to health care.

Cost control can only be obtained through appropriate incentives and rewards for nonabuse of the system at all levels.

Such a system of health assurance, supportive of individual efforts and based on the economics of wellness, is, indeed, attainable right now.

The only barriers to individual assumption of responsibility for their own health are really insufficient knowledge and a society which is really subordinated to individual responsibility to society at large.

However, the motivation to accept these realities, reorder our priorities, and restructure our system can come only through individual realization that a perpetuation of the present system will result only in higher and higher costs, as well as greater and greater frustration by those people who are attempting to use the system.

We must restore public motivation for self-determination and self-reliance. We must provide incentives to renew public confidence in these values. We must recognize and restore those environments in our society, like the family and other support groups, that will allow for the development of a system that can provide needed services within reasonable cost constraints while maintaining protection of human rights and dignity.

To put these constraints on the system and restore those rights and responsibilities requires a very careful and thoughtful approach. One principle that has to guide us is that the individual can and must begin to make decisions of how, where, and to what extent his own resources are being allocated to provide medical services.

Of equal importance to the success of any effort which is designed to reorder our priorities and reestablish the goals of our system and our whole society, the role of the physician will play an extremely important part.

If one word could be used to guide the physician in this key role, I would use the word "restraint." Individual responsibility and a sensitive system and reasonable technology can combine through the direction and judgment of the well-trained physician to create what all of us want to occur.

The ultimate success of any effort to restructure and change the goals of this effort, however, involve an effect on the economics of the health care system which is very radical and very deep. It depends to a great extent directly on the initiatives provided by Federal legislation.

Legislation must provide the incentives to alter individual consumption of expensive hospital care. To be effective, the patient and the individual must be motivated to avoid the high cost of those care environments where the cost is not directly related to essential services.

Objectives of such efforts and legislative initiatives must be to improve the market for health care services. That market, as opposed to the market that exists today, must have price elasticity and must resemble efficient markets in other sectors of the economy.

The consumer must be provided with information about that marketplace and given greater financial stakes in acting on that knowledge.

The consumer must be provided with more information about how to utilize the system and make it work for his benefit.

In a competitive market, providers will have to market their services, as well as disclose their costs, in terms of costs per illness and cost per unit of service.

Moreover, the intensity of hospital and physician services will be affected by increased competition from alternate providers, such as HMO's, surgery centers, independent physicians' organizations, nursing homes, free-standing emergency rooms, and other alternative delivery modalities.

Just as we are capable of applying our research and technical abilities, we have the creative potential to provide alternate care environments.

Ultimately, the provider and consumer market relationship will adjust the absolute volume of health services provided and begin to meet real consumer demand.

In addition to providing legislative and tax incentives to minimize overutilization of expensive facilities and services, the role of Government in this process as a manager and a regulator of health care systems must be curtailed or eliminated, except where it has been proven to be successful.

The Government must stop writing regulations as to how to operate health care production, because in this society the production in the private sector can be much more cost effective and efficient; whereas, the Government is an inefficient producer-manager of health care and needs to assume a secondary role in its production.

The route to cost containment and quality health care joined together is a process of matching need to service and allowing market forces to establish efficient economies. That is the only way to do it in our society.

Programmatic deregulation of the industry must be effective. Competition must be fostered at all levels, especially among the large providers and third-party reimbursers.

The commitment and effort to bring about such change in the health care system needs to be centered and coordinated. Its accomplishment will not be easy, but the rewards will be as great as the effort.

It has been estimated and reported here that the elimination or control of the consequences of smoking and alcohol abuse in this country would result in a savings of over $25 billion in direct medical care costs, plus an additional savings of nearly $85 billion in indirect costs, plus increases in productivity from the loss of worker productivity.

Other benefits from a program of health assurance and an economy based on wellness would be likely to be even more profound and are not even measurable at this time.

It requires a combination of individual initiative, responsibility, and effective leadership to result in a better and healthier life for all of us.

Both the crisis and the opportunity we face, I think, were beautifully summed up in a statement written by the late John Knowles in a book he edited, entitled "Doing Better and Feeling Worse." He said:

> When all is said and done, let us not forget that all of us enjoy excess and anyone who hates it hates humanity itself. Life is meant to be enjoyed, and each of us in the end is still able in our own country to steer his vessel to his own port of desire. But the costs of individual irresponsibility in health have now become prohibitive. The choice is individual responsibility or social failure. Responsibility and duty must gain some degree of parity with our right and freedom.

Thank you.

[The prepared statement of Dr. Pesch follows:]

HEALTH ASSURANCE---THE ECONOMICS OF WELLNESS

Testimony before the Senate Committee on Labor and Human Welfare by LeRoy A. Pesch, M.D., Chairman of the Task Force on Health Economics, The Commission for Responsible Health Policy and Chairman and Cheif Executive Officer, Health Resources Corporation of America.

July 16, 1981

INTRODUCTION

Mr. Chairman, Members of the Committee, Distinguished Colleagues, and Guests. My name is LeRoy A. Pesch. I reside at 333 North Mayflower Road, Lake Forest, Illinois. I am a member and Chairman of the Task Force on Health Economics of The Commission for Responsible Health Policy. I am a physician. I am also Chairman and Chief Executive Officer of Health Resources Corporation of America and President of L. A. Pesch Associates, a Health Care Consulting Firm in Chicago.

I am testifying today, however, as a concerned American Citizen. While my comments are reflective of twenty-five years of experience in the health care field, my concerns are those of the citizens of this great country who are crying out for---yes even demanding---easier access to health services which are of uniformly high quality, appropriate and rational in their application of medical technology and available at a reasonable cost.

The inflation of the past several years has significantly affected the social acivity and economic vitality of our society. But the inflation of health care costs of the past twenty years has brought us to the point where the health of our nation together with the future of the ordered system we have created and devised to provide medical services to the people who need them, have been placed in jeopardy.

Unfortunately, neither the taxpayers nor the government can pay the bill that the health care industry generates any longer. As the costs of health care approach ten percent of our gross national product, neither the providers nor the government purveyors of policies appear to operate in recognition of the present realities of economic scarcity. This country can no longer assume an uncontrolled increase in its health care debt.

The critical state of our economy demands an immediate response. These critical problems of our time can no longer be discussed behind the shield of platitudes or put off by political rhetoric. The times call for leadership. Leadership characterized by vision, by wisdom, and without narrow partisanship for ANY vested interest, save that which in the long run preserves the best of our medical care system and serves the best interest of most of the people.

For better or for worse, the interests of the people have been set aside in many instances in favor of narrow partisan interests. Interests intent in shifting efforts and resources away from the vital and legitimate priorities and concerns of those who seek help from the system toward a set of priorities that are derived from political perceptions about moral justice and an active role of government in interpreting, regulating and rationing the benefits of living in a "free society".

As has been said by many--American society has become "medicalized". Our preoccupation with a broadened scope of health which embraces "a state of complete physical, mental and social well-being" (to use the definition elaborated by the World Health Organization) subverts personal goals for well-being to a communal set of social values. Such utopian dreams are not only unobtainable--they are undesirable.

Although our scientific and technological advances in the last twenty-five years have been truly remarkable, we need to remember that in point of fact, the present state of our science and technology is in fact limited. The possibility of new miracles must be tempered by the uncertainty that new knowledge will indeed render the afflictions of our mortality soluble.

However, the reality of medicine's inability to solve all of society's illness operating in this environment of unlimited expectation, has compounded the cost of care issue with a loss of public confidence in the physician and the system which allows him to practice his art.

Political reaction to the resultant public dissatisfaction has been inappropriate. The belief that government can fill the gap between unreasonable public expectation on the one hand and medical reality on the other by making total health a constitutional right of citizenship is a fantasy. The fact is, however, that politicians have attempted to do just that!

The consequences of that approach are the elements of the crisis in health care that we are attempting to define and deal with now. I would submit that it is not a crisis of real need. Rather, it is largely a crisis that has been generated by a society that has attempted to make health care the vehicle for the achievement of all human happiness.

Such an approach has established "health" as a conceptual black hole into which endless resources have been poured without subsantial benefit. Such lack of recognition that there are limits to which the health industry in our society can aspire, results in an unlimited economic burden for society to bear.

The results of that approach are upon us. Our resources are limited. Government is too big. Inflation is destroying our societal and economic stability. Restraint in our desires and sacrifice for retention of our values may not be politically popular but now it is essential for our survival.

BACKGROUND

Such calls for action have been heard before. The records of Congress and the catalog of Federal publications are full of hearing testimony and reports of conferences held to address these problems. One such series of conferences was held in the fall of 1974: the National Center for Health Service Research's Conference on the Effects of Inflation and Anti-Inflationary Policies on the Health Sector, held on September 15 and 16, 1974; the Health, Education, Income Security and Social Services Conference on Inflation held on September 19 and 20, 1974; and the White House Summit on Inflation, which met September 27 and 28, 1974.

The background of concerns against which this series of conferences was played out is a now-familiar refrain. Inflation in the Health sector and the rest of the economy was out of control. Between 1950 and 1974, total health expenditures had increased from 4.6 to 7.8 percent of the gross national product. The annual rate of increase in expenditures for health services in the years recently prior to 1974 ranged from 10 to 12 percent. Based on the increase in the Consumer Price Index, annual rates of increase were expected to increase to 18 percent. Per capita expenditures for health care services in 1974 were 496 dollars. In fiscal 1973, 26.2 percent of health expenditures came from the Federal budget, a figure that had more than doubled between 1966 and 1973.

The deliberations of this series of conferences were carried out by more than 100 representatives from the public and private sectors involved in the planning, financing, delivery, purchase, and consumption of health care. The entire proceedings were published by the Milbank Memorial Fund. The views and recommendations of the Pre-Summit Conference on Health were submitted to the President, Members of Congress and Delegates to the White House Summit on Inflation by the Rapporteur of the conference, Dr. Michael Zubkoff, the Professor and Chairman of the Department of Community Medicine at Dartmouth Medical School and Professor of Health Economics at the Amos Tuck School of Business Administration of Dartmouth College.

The following is a quotation of that summary: (Because of the limitation of time, only those items preceded by an * will be read at the July 16 hearing.)

"It is generally recognized that the health sector is both a hostage and a cause of inflation. Recognized inherent structural defects in the current system were identified, e.g.:

*1. Fee-for-service and cost-plus reimbursement neither encourages nor rewards cost containment and, in fact, encourages cost growth.

*2. Existing methods of third-party reimbursement provide little or no control over rising prices.

*3. Insufficient competition exists within the health industry, so that market forces that exist in other sectors to induce increased productivity and efficiency are largely absent in the health care sector.

*4. First-dollar insurance coverage reduces cost-consciousness on the part of consumers.

*5. Consumers lack the requisite knowledge to enable them to become aggressive, informed purchasers of health care.

"Such characteristics lead to substantial waste in terms of unnecessary hospitalization, exessive prescription of drugs, over-expansion of facilities and the over-utilization of various services. At the same time, some of our citizens are unable even to gain access to health services---either for financial reasons or due to maldistribution of resources.

"There were several common themes underlying the numerous debates that took place throughout the conferenace. The most prevalent were:

*1. The federal commitment to health care must not be reduced.

*2. The health care system in the United States requires fundamental structural reform if there is to be any chance of containing cost without deterioration in the quantity or quality of services delivered.

*3. Existing regulatory mechanisms are inadequate. The question of whether this implies a need for more regulation or more competition was continually addressed but never resolved.

4. Underlying all of the discussions was a basic disagreement among the representatives as to the appropriate role for governmental intervention---support was expressed for a variety of approaches from public utility type intervention (i.e., controlling capacity and rates), to more market-oriented forms of intervention.

"While conferees identified numerous and significant inflation related problems, and subsequently developed numerous recommendations for action, there was a definite lack of widespread consensus---mostly due to the diversity of organizations and points of view represented. The first of the recommendations set forth below is the only one which represents true consensus among the conferees. The remaining recommendations reflect the views of a substantial mumber of conferees, with the understanding that strong dissenting opinions were often expressed.

1. Strengthen rather than reduce or eliminate health and human services programs. This is especially true because (a) the poor suffer most from inflation, and (b) increased unemployment from anticipated anti-inflationary policies will increase the need for such services.

*2. Immediately establish a national program of on-going monitoring, evaluation, and public disclosure of both the impact of inflation on the health care sector, and the contribution of the health care sector to the inflationary spiral.

*3. Proceed with the development of a national health insurance program, but remain cognizant of the potential inflationary impact of increasing access and demand if changes in supply and the reorganization of health care delivery are not simultaneously instituted.

*4. Encourage the use of ambulatory care and increase the emphasis on preventive medicine through the restructuring of insurance benefit packages and through the development of prepaid group practice.

*5. Change the statutory definition of Health Maintenance Organizations to allow for more flexibility in assembling benefit packages tailored to the needs and financial resources of different population groups.

6. Increase the supply of certain primary care poroviders, such as family practice physicians, physician assistants, and nurse practitioners. Simultaneously encourage third-party reimbursement for the services of non-physician providers.

7. Promptly develop and institute flexible regulations for Health Maintenance Organizations and Professional Standards Review Organizations which will stimulate accelerated experimentation with a wide variety of alternative delivery system approaches and will assure that the quality of health care will not become a casualty of zealous efforts to contain costs in the health sector.

*8. Restructure reimbursement methods to encourage the development of payout mechanisms which contain incentives for efficiency (e.g., prospective reimbursement for hospitals).

9. Encourage comprehensive health planning coupled with regulatory powers at the state and local levels, thus providing a means for cost containment and reduction in the duplication of facilities and services.

*10. Initiate consumer education activities to increase the public's knowledge of the health care system, regarding both the proper utilization of medical services and improved understanding of drug prices, physician's fees, and hospital charges so that consumers can begin to make more informed choices.

11. As a short-run measure, wage and price controls of a flexible nature could be reinstated. Many conferees stipulated, however, that such controls should not be applied only to the health sector. Voluntary restraint was viewed by most as unlikely to curb inflationary behavior, even in the short run.

"As a final note, many of the conferees were fearful that the conference was designed to create the illusion of support for Administration policies that will result in a reduced federal commitment to health programs even though there were Administration assurances to the contrary. Nevertheless, many conferees will await with considerable apprehension the results of final policy deliberations."

The economic performance of the health sector since 1974 is now a matter of record. In 1975, the year immediately following this conference and report, total health spending in the United States reached $118.5 billion or $547 per capita (a 13.9 percent increase over the previous year). This represented 8.3 percent of the gross national product. Public spending increased 22.2 percent, compared with 12.3 percent in 1974. This rate in public spending represented a rate more than two and a half times the rate of increase in the private sector. Most of the increase in the public sector represented increased expenditures under the Medicare and Medicaid programs.

By 1979, with annual increases in total health care expenditures continuing to average 12.3 percent, the total bill for health services in this country came to $212 billion, or $943 per capita. In 1981 that same total bill is estimated to come in at $279 billion. By 1985 unless something is done, it will be $462 billion and by 1990 it will come perilously close to a trillion dollars!

The comprehension of such figures to the average American citizen is virtually impossible. Those kinds of figures are common however here in Washington. Still, dealing with resources of that magnitude does not relieve elected officials in high position of public responsibility and actions based on knowledge of where those dollars come from. It was shocking to me as a taxpayer therefore, to read in The New York Times this past sunday of such an apparent lack of understanding by a member of the Senate of the United States. In an article entitled "Don't Throw Out the Baby with Medicaid-Medicare Bathwater", Bernard Weintraub included the following quotation:

"It's very hard to make people conscious of problems they don't have any longer because of social legislation," said Senator Daniel P. Moynihan, Democrat of New York. "My mother broke her hip last spring--a common accident among older people. Because of Medicare, it cost us nothing. Not only were we relieved but so was she. I don't think middle-aged people understand how releived their parents are that they're insured, that neither they nor their children have to pay."

THE ECONOMY OF WELLNESS

Obviously, more has come out of the Medicaire and Medicaid Programs than the enormous cost. And the experience of the last several years, including that summarized in my remarks here today, indicates that there are no easy solutions to the problem of rising medical care costs.

Cost controls, voluntary programs by the industry, government regulation, health planning legislation, professional standards review, HMO legislation---all have proven ineffective in slowing the cost increases. As long as we persist in defining "health" in unlimited terms and insist that every citizen in our society has a constitutional "right to health care", costs will continue to spiral upward.

Such an ideological dilemma forecloses rational discussion of reasonable limits for health care services OR definition of a delivery system in which concerns of the individual regarding access, costs and human quality care can be given proper consideration. We are paying the price for unreasonable demands. We are paying the price for government insurance of health according to the economic rules of illness.

This narrow concept of health, based on eradication of all illness at whatever cost, loses sight of the disparities in incidence and relative disability caused by various diseases in different individuals and groups of people. Thus, entire segments of the population feel disenfranchised by a seemingly insensitive system. The poor, for example, feel excluded because the "system" is not directed toward their particular perceptual conception of health needs. In treating categorical illness as the only way to better health, we have dehumanized the system, as well as medicalized society. It is as if we had built a Navy consisting only of battleships to defend against and attack a diversified enemy fleet.

We must seek a more modest set of goals in a more sensitive settings. To do so means that individuals---both singly and collectively--must stop demanding that the "system" respond to their every desire. In order to bring about this fundamental change, two facts need to be promulgated and accepted by each of us. FIRST: At the present time, in spite of the vast amount of information gained and technologies developed over the past 25 years, we still do not know enough to prevent or cure most of the major diseases that afflict us. SECOND: That the great majority of persons born today in this country are born healthy, that the life expectancy of those born is greater than ever, and that if each of would assume more individual responsibility in relationship to our own health, we could improve dramatically our chances of surviving and live in a world with a higher quality of life.

We must also become sufficiently informed in order to put science and technology in proper perspective. There is no reason to set aside scientific or technological optimism. Continued support of scientific research and development of appropriate technology will continue to result in better understanding of the mechanisms and causes of disease. Curative measures will be developed. But by nature of the process, the timing cannot be predicted, and cannot be rushed.

On the other hand, the fact that improvement in health and the prevention of disease can result from personal behavior is also well-documented. To achieve such results, however, each of us needs to assume an individual obligation to preserve our health.

If each of us were to make such a personal commitment, a system could emerge wherein knowledgeable people concerned about their well being, could avail themselves of information and freely accessible services of guaranteed good quality with minimal financial barriers to care. Cost control can be obtained only through appropriate incentives and rewards for non--abuse of the system at all levels.

SUCH A SYSTEM OF HEALTH ASSURANCE, SUPPORTIVE OF INDIVIDUAL EFFORTS, AND BASED ON THE ECONOMICS OF WELLNESS, IS ATTAINABLE NOW.

The only barriers to individual assumption for responsibility of health care are insufficient knowledge, and a society which has subordinated individual responsibility to society-at-large. However, the motivation to accept these realities and re-order our priorities will come only through individual realization that a perpetuation of the present system will result only in higher and higher costs, as well as greater frustration and dissatisfaction.

Before embarking on such a change of course, however, it is appropriate to ask "Can we change?" "Are we willing to change?" Or is the course of medical care locked in by the pattern of profits being gleaned from the system by the corporate monopoly of aligned self-interest groups?

If the answer is yes to the question of change, then the unwinding of the beaurocratic cocoon that has brought us to where we are requires some fundamental changes in our approach to treating disease and developing a more healthy populace.

FIRST: We must restore public motivation for self-determination, self-reliance and inner self-strength. SECOND: We must provide incentives to renew public confidence in these values. THIRD: We must recognize and restore those environments in our society that will allow development of the medical delivery system that can provide needed services within reasonable cost constraints, while maintaining protection of human rights and dignity.

To put these constraints on the system and restore individual rights and reponsibilities and provide for reasonable health assurance requires a careful and thoughtful approach. Hope of achievement of such a system rests on the fact that recent public actions indicate that as a society, our individual values remain healthy.

However, one principle can and must guide us as we try to find our way out. That is the principle that the individual can and will begin to make decisions about how, where and to what extent resources will be allocated for medical services. Those decisions will more than likely reflect the value of the benefit resulting from the intervention of the medical delivery system in his or her life, the life of the family and the life of the community in which that individual lives. Therefore, in assuring the people of a system that fulfills the need for health care, reform--not revolution--is what is needed. We need to draw upon the strengths of society and the professions--both private and public sectors--to find the means of correcting past weaknesses of the system.

Of equal importance to the success of any effort designed to re-order the goals of the health care system is the role that must be played by the physician. If one word could be used to guide the physician in this key role, I would advise the use of the word RESTRAINT. Individual responsibility, a sensitive system, and reasonable technology must be coordinated and directed by the judgement and compassion of the well-trained physician. Physicians and other health professionals must be aware of the limits of our therapeutic technology. To be sure, there are far--

reaching moral and legal implications to the notion of limits. However as technology advances and each generation of physicians gains access to new therapeutic boundaries, the ethical boundaries of the practice of medicine must continue to be re-examined.

The ultimate success of any effort to restructure and change the goals and thus affect the economics of the health care system, will depend directly on the initiatives provided in federal legislation. INCENTIVES MUST BE PROVIDED TO ALTER THE IDIVIDUAL'S CONSUMPTION OF EXPENSIVE HOSPITAL CARE. To be effective, the patient must be motivated to avoid high cost care environments where the cost is not directly related to essential service.

In the past, the government has been insensitive to the industry and its market conditions. Inadequate incentives have failed to adjust the supply of health care to real demand. Current conditions demand that we do more than simply examine the health industry cost structure and generate new policies which remain largely independent of the rest of the economy. We must put health economics into the mainstream of the rest of the nation's economy.

The objective of such efforts and legislative initiatives must be to improve the market for health care services. The market for medical services must have price elasticity and must resemble efficient markets in other sectors of the economy where the interplay of people seeking profits and paying out of pocket money for their goods and services disciplines the behavior of both the consumer and the provider. To be effective in such a market, the consumer must be provided with more information about the marketplace, AND given greater financial stakes in acting on that knowledge together with knowledge of the risk incurred in any financial tradeoffs that might occur as a result of any decision.

In a competitive market, providers will have to market their services as well as disclose their costs per illness or unit of service. Moreover, the intensity of hospital and physician services will be affected by increassed competition from alternative providers such as: HMO's; Surgi-centers; IPA's; Nursing Homes; Free-standing E.R.'s; Hospices; and other alternative delivery modalities. Ultimately, the provider consumer market relationship will adjust the absolute volume of health services provided to the real consumer demand.

In addition to providing legislative and tax incentives to minimize overutilization of expensive facilities and services, the role of government as a manager and a regulator of the health care system must be eliminated except where it has proven successful. The government must stop writing regulations on "how to operate" health care production. The government is an inefficient producer-manager of health care and should assume a secondary role in its production. It should limit its involvemint in production to establishing minimal performance criteria for providers and insurers in order to protect the consumer and promote private sector management. The route to cost containment and quality health care is a process of matching need to service and allowing market forces to establish efficient economies. Programmatic de-regulation of the industry must be effected. Competition must be fostered at all levels, especially amongst large providers and third-party reimbursers.

The commitment and the effort to bring about such a change in the health care system would need to be centered and coordinated. Its accomplishment would not be easy. But the rewards would be as great as the effort. It has been estimated that elimination or control of the consequences of smoking and alcohol abuse in this country would result in a saving of $25 billion in direct medical costs plus an additional savings of $85 billion in indirect costs from loss of worker productivity. Other benefits from a program of health assurance and the economics of wellness would likely be even more profound.

The combination of individual initiative, responsibility and effective leadership can result in a better, healthier life for all of us. The crisis and opportunity we face is beautifully summed up in the statement written by the late John Knowles in the book he edited, entitled "Doing Better and Feeling Worse":

> "When all is said and done, let us not forget that he who hates sin, hates humanity. Life is meant to be enjoyed, and each of us in the end is still able in our own country to steer his vessel to his own port of desire. But the costs of individual irresponsibility in health have now become prohibitive. The choice is indivudual responsibility or social failure. Responsibility and duty must gain some degree of parity with right and freedom."

The CHAIRMAN. Thank you.

I have enjoyed the remarks of each of you. I missed some of yours, Dr. Henderson.

We have a number of questions that we will submit in writing to you. We hope that you will answer those as quickly as you can.

Dr. Mason, your testimony makes me proud to be from Utah. It makes me wonder what in the world I am doing here in this environment when I could be so healthy out there. [Laughter.]

I think that it is important to bring out that when people live good health principles, they generally have good health results. I think you have brought that out here today. And that is whether they are Mormons or Seventh Day Adventists or whatever, living good health laws.

In that regard, Jennings Randolph, our distinguished colleague from West Virginia, who has been here for what appears to be about a half a century and who has enjoyed good health for most of that time, asked me to be sure to point out that we should include pipe smoking as well as cigar smoking. [Laughter.]

He said to make sure that that was a part of the record.

Be that as it may, we are grateful for your time and for the efforts you have put forth in bringing your excellent testimony to our attention here today.

Our second panel today will provide a specific review of some of the health problems relevant to preventive medicine and health promotion.

Dr. Robert S. Eliot is currently the cochairman of the department of preventive and stress medicine at the University of Nebraska. He will discuss the role of stress in cardiovascular disease.

Dr. John Holbrook, an associate professor of medicine at the University of Utah, College of Medicine, serves as a consultant to the Department of Health and Human Services, Office of Smoking and Health. He will discuss the relationship of cigarette smoking and disease.

Mr. Graham Ward is Chief of the Health Education Branch of the National Heart, Lung, and Blood Institute. He will discuss the effectiveness of the hypertension program and efforts to involve the private sector in health promotion.

We are delighted to have you gentlemen with us here today. Certainly, Dr. Holbrook, coming from my home State and the University of Utah, we are really happy to have you as well—

especially since you have been a teacher of some of the members of my staff who have a very high regard for you.

I have one problem. I have to leave to be on the MacNeil-Lehrer show in about 5 minutes. I do believe that Senator Denton will be here to take the rest of your testimony.

If I have to leave before he gets here, then I am going to ask Dr. Sundwall of my staff, who himself is a renowned physician, to continue to take the testimony which is crucial to the making of this record.

I would just like to apologize in advance for not being here to hear all of your testimony here today.

Dr. Eliot, we will begin with you.

STATEMENT OF ROBERT S. ELIOT, M.D., DEPARTMENT OF PREVENTIVE AND STRESS MEDICINE, UNIVERSITY OF NEBRASKA MEDICAL CENTER

Dr. Eliot. Thank you, Mr. Chairman.

With your permission, I would like to hit the highlights of my submitted testimony.

The Chairman. That is fine.

We will put all the statements in the record as if delivered in full at the completion of all the oral presentations.

Any exhibits you would care to add or any documents that any of you, as witnesses, would care to add to our record will also be included.

Dr. Eliot. Thank you.

In the interest of time, I will abbreviate my remarks.

It is an honor to appear before you and this prestigious committee and to share my thoughts on what I believe has become recognized as the major malady of the 1980's.

I am referring at this time to stress and its destructive effect upon Americans from all walks of life.

If we are to make any meaningful headway in promoting preventive medicine, we must first learn how to healthfully deal with stress.

As a practicing physician, researcher, teacher, officer of the American College of Cardiology, and consultant to many businesses and governments, I have witnessed the increasing evidence for stress disease relationships for many years.

Let me quickly summarize three points.

First, stress is a major missing factor in the puzzling cardiovascular disease equation. It is the factor that may help us find the formula for cure and prevention of the leading killer of Americans.

Second, we know that many harmful effects of stress can now be demonstrated by objectively measuring the physiological responses to environmental pressure.

Third, we believe that since harmful responses to stress arise largely from learned reactions, these learned reactions can also be unlearned and more favorable and health-productive reactions substituted.

Needless stress and its harmful side effects, including cardiovascular disease, can thus be prevented, ameliorated, or postponed.

Based on 20 years of research, my team at the University of Nebraska Medical Center, Department of Preventive and Stress

Medicine, now and has been studying the role of stress in a unique and innovative way.

In our life stress simulation laboratory, we are able to measure the actual responses of the body, physiologically, to psychosocial stress by objective measurements of the performance of the heart, rather than by subjective overt behavioral assessment.

The workings of the lab are described in detail in numerous published articles. In brief, this is what we do and how it works.

The patient is first given a thorough history and physical examination, plus many special studies. For example, in a special soundproof room, the patient receives a simulated psychological stress and mental tasks that are very similar to what we each face in our daily lives.

With computers and special electrodes, we monitor all the heart's responses. What we are finding has truly astounded us.

Literally one in every three apparently healthy Americans demonstrates unsuspected physiological overreactivity.

We can now demonstrate that even minor mental tasks in some people cause the blood pressure to rise dramatically and heart rhythms to falter in a potentially fatal manner.

The reason this finding is so important to me and to you, Senator, is this.

Our study suggests that what we are seeing in the laboratories is being duplicated every day in the real world by millions of Americans.

Our target group is people we call hot reactors. This is more than one-third of unsuspecting, apparently healthy Americans.

Sometimes these people can be distinguished by their hostility, their competitiveness, and their impatience—things which, in a sense, Senator Randolph referred to.

This triad often, but not always, marks the hot reactor.

What you see on the surface is not necessarily what you get under the surface.

In other words, how people feel or behave is not a particularly good predictor of covert or physiologic behavior. The hearts of hot reactors may be burning up as much oxygen as an individual running up several flights of stairs and carrying 25 pounds under each arm. This can occur by doing a simple mental task.

There are 40 million Americans with high blood pressure, and stress is an important contributing and precipitating factor and a sustaining factor in this significant condition.

Almost three-fourths of all visits to family physicians and internists are related to unrelieved stress, according to one Government-sponsored study.

Many of today's women are more stressed than men. Not only has women's liberation brought women into new arenas and stresses but many are still expected to remain feminine, motherly, loving, and nonthreatening to men. A woman is often expected to act like a lady, think like a man, and work like a dog. It is too much for many, as health statistics are proving.

Stress in the workplace, one union official recently said, falls somewhere between quitting and taking up arms. Professional people work under tremendous self-imposed pressures. Fully 26 percent of all sudden unexpected heart attack deaths occur on a Monday.

How and why does stress do its work and its damage?

The sad fact is that millions of Americans handle stress by unnecessarily pumping high-energy chemicals to meet low-energy requirements. They do not know it; they cannot feel it. In time, the consequences are disastrous.

What happens is something like this:

Under stress, the body is often locked in a state of readiness for combat or for fight, but the person cannot spring into action.

In this situation, he or she may be invisibly entrapped. This can push blood cholesterol levels far beyond those caused by diet, and blood pressure can rise out of sight.

These hot reactors are literally overdosing on their bodies' own chemicals in response to today's stress. These so-called catecholamines, or chemical messengers, can be killers. They can literally rupture small muscles in the heart, bringing about chaotic and fatal heart rhythms.

The small vessels in the body clamp down and increase the resistance to the heart beat. It is literally like driving your car with the brakes on, the harder the motor must pump or work against dramatically increased resistance. There is a limit to what the heart can do and it, too, can suddenly burn out.

For 8 years, I directed research teams that observed aerospace workers at Cape Kennedy drop dead when people were fired—not rockets fired.

For many years, I have been a consultant to the Government of Finland, which has the highest incidence of coronary disease and sudden death in the world and where the highest incidence of death occurs in those towns closest to the Russian border.

These are but a few isolated examples, but what are the consequences for our Nation as a whole? Why is it important to the U.S. Congress?

Last year alone, 140,000 victims of coronary heart disease were pieced together and generally benefited from coronary artery surgery. The cost was $2 billion.

This is, again, a 911 alarm approach instead of the "Smokey the Bear" which has been indicated.

We believe a better way is to recognize the evidence that the brain can provoke powerful cardiovascular responses. In today's stress society, what nature provided as a survival reaction which was successful for 2½ billion years can in today's world be suicidal.

Furthermore, stress is a powerful component, deeply interwoven in every single currently known coronary risk factor.

Simple solutions are not available. Managing stress in the 1980's will require the best efforts from our best scientific minds. We believe it is time for a major emphasis on behavioral medicine which is, in a sense, the medicine of the future.

We do not need more doctors. We need more physicians.

We believe that today there is an ideal blend of technology and timing to life behavioral medicine and stress from the mire of the mystics and occults who would claim it for their own and place it firmly in the realm of scientific medicine.

It is time to take stress management out of popular psychology and place it where it belongs—in the field of scientific medicine. The time is now.

What can we do? It may be that we need a blue ribbon national commission, drawn from both the private and public scientific sectors to chart a national course for stress management in preventive medicine.

In the past, Congress has chartered special committees on categorical diseases, such as diabetes and high blood pressure. Much progress has been made through these efforts.

Both of these are important conditions, and yet neither diabetes nor high blood pressure is as pervasive and pernicious in our country as unrelieved stress.

My work at the University of Nebraska Medical Center and around the world has raised many questions. Questions we are raising here today must be answered if the health of the future generations is to be safeguarded.

They need to know how to be productive without being self-destructive. Instead of massive studies, I would recommend small pilot studies to measure the effects of stress on the body in three major areas.

First, the workplace: We need controlled, clinical trials among blue collar, white collar, and executive workers, as well as among rural workers in this Nation. We know that workers who are easily aroused are most vulnerable to stress, and we need data that link the physiology of arousal, job performance, and stress and tells us the mechanisms by which these processes cause or contribute to disease.

Second, in women, we need controlled clinical trials among women, particularly those that are new to the workplace and who are functioning as multiple-role martyrs, attempting to be wife, mother, breadwinner, and so forth.

Finally, I would suggest a study in children, for we need clinical trials among the young, particularly those at high risk, either because they have parents with high blood pressure or heart disease or for some important reason that increases their risk.

Behavioral patterns, as has been said earlier by these panelists, are set early. It will be important to see what effects overreactivity to stress has on children, including such areas as delinquency, school performance, and illness as well.

It will require a major effort by our best minds to make stress management a sensible and practical reality.

I hope to share in the campaign and I hope to be of any assistance that I can in the future.

Thank you for allowing me this opportunity.

[Information supplied for the record follows:]

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September 9, 1981

Orrin G. Hatch
Chairman
Committee on Labor and
  Human Resources
United States Senate
Washington, D.C. 20510

Dear Senator Hatch:

Thank you for your letter of July 28th, 1981. With regard to the question from Senator Kennedy, "Could you explain what you mean by your statement, 'We don't need more doctors, we need more physicians.'" The original meaning of physician was educator. It is the root of preventive medicine. Doctor, today, is a relatively non-descript term which often is used to describe an individual with limited skills, or technical skills. My plea in the phrase is for those who will balance scientifically based medicine with humanistic concern and capabilities, and translate these into educational efforts leading to preventive medicine.

Sincerely yours,

Robert S Eliot

Robert S. Eliot, M.D.
Professor of Medicine
Chairman, Department of
Preventive and Stress Medicine and
Director, Cardiovascular Center

RSE/ju

University of Nebraska—Lincoln   University of Nebraska at Omaha   University of Nebraska Medical Center

Senator DENTON [acting chairman]. Thank you, Dr. Eliot.

Before proceeding to Dr. Holbrook, I have been persuaded, as you have, that women—even girls—have to undergo more stress than men. How do you account for the longer life expectancy of women in today's society? This is just personal curiosity.

Dr. ELIOT. There are many reasons perhaps for that.

Their longer life expectancy began much before women became liberated, which has only been for a little more than a decade.

I think what we are seeing now, Senator, is that many women who were previously perhaps gifted to long life are experiencing early and premature illness.

Whether these statistics will hold up in the future I think will largely depend upon how well we understand the new role of women and how helpful we are to them in meeting the challenges they face.

Senator DENTON. That is very interesting. Thank you, sir.

Dr. Holbrook.

STATEMENT OF JOHN H. HOLBROOK, M.D., ASSOCIATE PROFESSOR OF INTERNAL MEDICINE, UNIVERSITY OF UTAH

Dr. HOLBROOK. Thank you, Senator Denton.

It is a pleasure for me to be here today to speak about tobacco and patterns of health.

I have been interested in how many of the preceding speakers have referred to the use of tobacco as being detrimental.

Some of you in this meeting today may be wondering why if we all know it is bad, we are going to talk about it some more.

I hope I can draw your attention to problems with smoking that are not well known—problems that need to be dealt with on the level of Government by private agencies, by physicians, and by individual citizens.

It is our estimation that cigarette smoking is the largest single preventable cause of illness and premature death in the United States.

An estimated 300,000 premature deaths occur each year in this country. Another 10 million Americans experience chronic illness because of smoking.

One of the current issues that was dealt with in the 1981 Surgeon General's report that I would like to highlight today is the rapid change in patterns of cigarette use.

Ten years ago, the use of low tar and nicotine cigarettes was at a very low level—less than 1 percent of cigarettes would have been categorized as this type.

Currently, 50 percent of cigarettes consumed in this country are of the low tar and nicotine type. The use of this type of cigarette apparently is perceived by the consumer to be relatively safe.

The amount of actual scientific data supporting this view that this low tar and nicotine cigarette is safe is very marginal. I would like to emphasize that and elaborate on that toward the end of my statement.

When I am trying to work with patients to help them understand why smoking is bad for them and trying to help them quit smoking, I like to compare the use of the cigarette to being a consumer of the products of a miniature chemical factory.

In reality, a burning cigarette is a miniature chemical factory which produces over 4,000 identified substances. The smoker takes this product of the chemical factory into his body.

It may surprise you if you take a minute to calculate that the typical pack-a-day cigarette smoker takes the cigarette smoke into his body an estimated 70,000 times a year.

One cubic centimeter of tobacco smoke contains billions of small droplets which in turn contain thousands of harmful substances.

When viewed in this context, it is not difficult to understand why cigarette smoke can do so many things to so many systems of the body.

We spend a great deal of time talking about tar and nicotine and carbon monoxide. When you actually talk to patients about their understanding of these substances, it is surprising that they know relatively little about what tar is.

Tar, for instance, is a term that applies to several hundred harmful substances, many of which are known to produce cancer in man and in laboratory animals.

Some of the disease patterns that we know are related to cigarette smoking can be summarized in this fashion. Current male cigarette smokers have a 70-percent excess mortality rate, compared to nonsmokers.

Women who smoke like men have a comparable excess mortality rate. Those who smoke in a more modest fashion have approximately a 30-percent excess mortality.

Senator DENTON. Could you clarify the meaning of excess mortality for a layman?

Dr. HOLBROOK. If we compare the death rates of a group of smoking women who are matched identically to another group of nonsmoking women, the smoking women will die at a 30-percent faster rate than those who are nonsmokers, presuming that the groups are matched in all other aspects.

Senator DENTON. And men are at a 70-percent faster rate?

Dr. HOLBROOK. Seventy percent excess mortality or death rates among men.

Senator DENTON. Can you translate that into an age expectancy?

Dr. HOLBROOK. Yes; you can. You can do it in this way.

Let us take a 25-year-old white male and match him with a nonsmoking peer who is the same in all other respects.

If that individual smokes 10 cigarettes a day, he will live on an average of 4.5 years less than his nonsmoking peer. If you increase that to two packs a day, that smoking individual will live 8.5 years less than his nonsmoking peer.

Comparable data are available for women as well.

It is an astounding kind of projection.

Most of the excess deaths are due to three major categories of disease—heart attack, cancer, and chronic lung disease.

We estimate that if cigarette smokers have the same death rates from heart attack, there would be 160,000 fewer deaths each year. If they had the same death rates from lung cancer as nonsmokers, there would be 90,000 to 100,000 fewer deaths each year. If they had the same death rates from bronchitis and emphysema, there would be 40,000 fewer deaths each year. All of those death rates would be compared to nonsmokers.

Coronary artery disease, or heart attack, is the most important consequence of cigarette smoking. As I have mentioned, lung cancer, chronic lung disease, and other cancers are also related to cigarette smoking.

I want to emphasize, however, one other aspect of smoking that members of this hearing may not be familiar with. That is the effect of smoking during pregnancy.

During the past 10 years, there has been a great deal of research on the adverse effect of maternal smoking during pregnancy. It is now clear that infants who are born to smoking mothers weigh on an average of 6 ounces less than infants whose mothers did not smoke.

Mothers who smoke during pregnancy have an increased likelihood of spontaneous abortion, death prior to delivery, or death near and after delivery, from a variety of causes.

What may be even more surprising to those attending this session today is that there are increasing data to show that there are long-term effects on the infant born to a smoking mother. There appear to be measurable long-term effects on infant growth, intellectual development, and behavioral characteristics.

For those interested and concerned about occupational risks, smoking interacts with high-risk occupations, such as uranium mining and those workers who work in the asbestos industry, to greatly increase the risk for certain disorders.

Smoking may also interact with other factors, such as the use of drugs. The combined use of cigarettes and alcohol may have a very adverse effect on the incidence of certain diseases.

For the nonsmokers in the audience, there has been increasing concern about something called involuntary or passive smoking.

Initially, it was thought that the nonsmoker mainly had to put up with the nuisance of breathing smoke-polluted air. Later it became clear that those who suffer from lung disease and certain forms of heart disease may actually experience a worsening of their symptoms when they must breathe second-hand smoke-polluted air.

It is now becoming clear that asymptomatic patients who are chronically exposed to smoke-polluted air may develop disfunction of their lungs.

Within the last few months, there has been a study published in Japan and one in Greece which demonstrates an increased risk for lung cancer in the nonsmoking wives of smoking husbands.

The final point that I would like to make concerns the use of the so-called safe or lower-tar and nicotine cigarette.

I think consumers have the right to know the following:

There is no such thing as a safe cigarette.

The only way to avoid the health hazards associated with smoking is to not start smoking or to stop smoking.

There is relatively little scientific information available on the relative risks of low tar and nicotine cigarettes, and there is virtually no scientific information available on the very low tar and nicotine cigarettes.

For those who are unwilling or unable to quit smoking, the use of lower tar and nicotine cigarettes results in a modest reduction in risk for only one disease that can be documented. That one disease is lung cancer.

Compared with not smoking or quitting, the benefits are minimal. For the other diseases that are related to smoking, namely coronary disease, chronic lung disease, and the adverse effects on the unborn child, there is inadequate evidence to document reduction of risk through use of lower tar and nicotine cigarettes.

Smoke constituents other than tar and nicotine appear to play an important role in the development of these other diseases, and these other constituents may be present in increased, unchanged, or decreased amounts in the new low tar and nicotine cigarette.

It might surprise members of the committee to know that additives are being placed in the low tar and nicotine cigarette, and there is no public disclosure required about what these additives are. These additives represent an essentially unmeasured health risk for the active smoker, the passive smoker, and the unborn child.

There are some encouraging things. The trend in cigarette consumption is down in this country. There are numerous programs to help people who want to quit smoking, and there is a lively cooperation between various agencies and individuals.

I would like to list the following recommendations in conclusion and basically apply what we all know. These are recommendations for what I think the Government can do to apply what is already known about smoking and health.

I think the Federal Government should eliminate the appearance of duplicity by phasing out the tobacco support program.

I think the Government should require elimination of all tobacco advertising.

I think the Government should require that the tobacco industry implement an effective and accurate warning system in their product packaging, and the industry should be required to publish cigarette yields, not only about tar and nicotine but on gas-phase constituents, such as carbon monoxide.

Prior to marketing a new or altered tobacco product or using an additive, I think that the industry should study and publicly disclose its health effects.

The industry should be required to inform the smoker of the use and possible hazards of these additives.

A large excise tax should be levied to help pay for tobacco-related diseases, and there should be increased Federal funding of public information programs on the hazards of smoking.

Thank you.

[The prepared statement of Dr. Holbrook and responses to questions sent to him follow:]

TESTIMONY BEFORE THE LABOR AND HUMAN RESOURCES COMMITTEE ON:

Cigarette Smoking and Health Patterns

by
John H. Holbrook, M.D.

July 16, 1981

Since World War I cigarette smoking has become a major personal and public health problem. It is the largest, single preventable cause of illness and premature death in the United States; an estimated 300,000 premature deaths occur each year and 10 million Americans experience chronic illness because of smoking-related diseases.

The diverse effects of cigarette smoke can be more clearly understood when the cigarette is viewed as a miniature chemical factory, which produces a complex mixture of liquid particles suspended in gases. A pack-a-day cigarette smoker puffs more than 50,000 times a year and delivers several thousand identified substances to membranes of the nose, mouth, throat, and lungs. Some substances act directly on the membranes, while others are absorbed into the blood or are dissolved in saliva and swallowed. Tobacco "tar", nicotine, and carbon monoxide are the substances which have received the most attention. "Tar" is the total of the particulate matter in smoke, minus water and nicotine; thus it consists of hundreds of organic and inorganic chemicals, some of which are known carcinogens. Carbon monoxide is a toxic gas which interferes with oxygen transport and utilization. Nicotine, the most characteristic tobacco constituent, is a toxic substance which exerts effects on numerous systems of the body. Other substances judged to be less harmful, e.g. oxides of nitrogen, or those present in low concentrations, e.g. hydrogen cyanide, have received little attention.

Current men and women smokers have 70% and 30% greater overall death rates, respectively, compared to nonsmokers. (Women whose smoking profiles are comparable to those of men experience death rates similar to those of men). Most of the excess deaths are due to coronary artery disease, lung cancer, and chronic obstructive pulmonary disease. If American cigarette smokers had the same death rates from these disorders as nonsmokers, there would be an estimated annual reduction of 160,000 deaths from coronary artery disease, 90,000 deaths from lung cancer, and 35,000 deaths from chronic obstructive pulmonary disease. Another way of looking at tobacco-related excess mortality is to measure the amount by which a cigarette smoker's life is shortened: an average 25 year-old male who smokes less than 10 cigarettes per day may expect to lose more than four years of life. Smoking cessation is associated with a gradual decline in death rates;

10 or more years after quitting, the death rate of individuals smoking 20 cigarettes a day or less is about the same as that of nonsmokers. For certain diseases, e.g. coronary artery disease, significant decreases in death rates are measurable within one year of quitting.

The National Health Interview survey showed, in general, that men and women cigarette smokers report more chronic conditions, e.g. chronic bronchitis, than nonsmokers. Similarly, this survey indicated that the incidence of acute conditions e.g. influenza, is higher in men and women smokers than in nonsmokers. Current American men and women cigarette smokers report 33% and 45% excess work-days lost, respectively, compared to nonsmokers; excess work-days lost among smokers and ex-smokers is estimated to account for 20% of all work-days lost in the United States.

Premature coronary artery disease is the most important consequence of cigarette smoking. Smoking acts both independently and in concert with other major risk factors (hypertension and hypercholesterolemia) to increase the risk of developing coronary artery disease. Smoking appears to play a role in both the development of arterial narrowing and the triggering of a fatal or non-fatal coronary event. Smoking is also a major risk factor for the development of arterial narrowing in peripheral vessels, e.g. the legs.

In 1981 an estimated 120,000 Americans will develop lung cancer, and approximately 90% of these patients will die from this disease. Smoking accounts for more than 80% of these deaths. Among smoking women, the incidence of lung cancer is increasing more rapidly than among smoking men; currently, smoking women face a virtual epidemic of lung cancer, with the expectation that in 1983 this disease will surpass breast cancer as the number one cause of death from cancer among American women. Cigarette smoking is also causally-related to cancer of the mouth, throat, esophagus, pancreas, bladder, and kidney.

Cigarette smoking is the most important cause of chronic bronchitis and emphysema, diseases which account for a great deal of chronic disability due to breathlessness, weakness, and chronic cough. Even in teenage smokers, abnormal symptoms and subtle pulmonary function abnormalities are demonstrable.

Maternal smoking during pregnancy affects the fetus adversely. Infants, whose mothers smoked during pregnancy, weigh on an average, 6 ounces less than infants whose mothers did not smoke. Maternal smoking during pregnancy increases the likelihood of spontaneous abortion, fetal death, and death near the time of delivery. It may also adversely affect an infant's long-term growth, intellectual development, and behavioral characteristics.

Smoking may interact with other exposures. For example, asbestos workers and uranium miners who smoke are at extremely high risk to develop lung cancer. Women who both smoke and use oral contraceptives face a greatly increased risk for coronary or cerebrovascular disease. Smoking may also interact with prescription drugs, requiring adjustment of the medication according to the amount of smoke exposure. The combined use of alcohol and cigarettes results in a greater risk for developing cancer of the mouth, throat and esophagus.

Involuntary or passive smoking refers to the inhalation of smoke present in the ambient air. Much of the polluting smoke is emitted from the burning cone of the cigarette between puffs and is designated sidestream smoke. Initially, passive smoking was thought to represent primarily an irritation, e.g. burning eyes, nasal congestion. Later, data accumulated documenting that patients with symptomatic coronary artery disease and chronic obstructive pulmonary disease may note a worsening of symptoms when exposed to smoke-contaminated air. Even asymptomatic nonsmokers who are chronically exposed to smoke-polluted air may develop small airways dysfunction. Recently, studies from Japan and Greece have demonstrated that passive smoking may increase the risk for lung cancer.

Survey data suggest that the tobacco industry has convinced many smokers that a "safe" cigarette is currently available. (Lower "tar" and nicotine cigarettes currently account for nearly 50% of all American cigarette sales).

Consumers have a right to know that:

1. There is no "safe" cigarette.
2. The only way to avoid the health risks associated with smoking is to not start smoking or to stop smoking.
3. There is relatively little scientific information available on the relative risks of lower "tar" and nicotine cigarettes, and there is virtually no scientific information available on the relative risks of the new very low "tar" and nicotine cigarettes.
4. For those who are unwilling or unable to quit smoking, use of lower "tar" and nicotine cigarettes results in a modest reduction in risk for lung cancer and an increase in longevity compared to use of higher "tar" and nicotine cigarettes, provided compensatory smoking behavior does not occur; however, compared with not smoking or quitting, the benefits are minimal. For other tobacco-related disorders, e.g., coronary artery disease, chronic obstructive pulmonary disease, and adverse effects on the fetus and newborn, there is

inadequate evidence to document reduction of risk through use of lower "tar" and nicotine cigarettes.

5. Smoke constituents other than "tar" and nicotine appear to play an important role in the development of those conditions which account for most tobacco-related death and disease (coronary artery disease, chronic obstructive pulmonary disease, and adverse effects on pregnancy and infant health), and these constituents may be present in increased, unchanged, or decreased amounts in lower "tar" and nicotine cigarette smoke.
6. Public disclosures of tobacco additives is not required, and their presence in lower "tar" and nicotine cigarettes represents an essentially unmeasured risk for the active smoker, passive smoker, and fetus.
7. Published machine-smoked "tar" and nicotine yields imply an estimate of risk which fails to account for actual individual smoke exposure and gas phase constituents.
8. Tobacco product modification has not been accompanied by published scientific documentation of anticipated health effects.

Current trends in American cigarette consumption are encouraging: the overall prevalence of 32% for adult smokers is at its lowest level in more than 45 years. There are now more than 30 million ex-smokers. Numerous programs are available to assist smokers to quit. Innovative educational programs for the pediatric and adolescent age groups offer hope that future generations of young people will chose to not start smoking. Cooperation between individuals, voluntary agencies, and government can contribute to these favorable trends.

Recommendations for Government Action

The federal government should take several steps to deal more effectively with the smoking problem:

1. Eliminate the appearance of duplicity by phasing out the tobacco price support program.
2. Eliminate all tobacco advertising.
3. Require that the tobacco industry implement an effective and accurate warning system in their product packaging.
4. Require that published cigarette yields include data on gas phase constituents and on maximum possible yields.
5. Prior to marketing a new or altered tobacco product or using a tobacco additive, require that the tobacco industry study and publicly disclose its health effects.
6. Require that the tobacco industry inform the smoker of the use and possible hazards of cigarette additives.
7. Levy a large tobacco excise tax to help pay for tobacco-related disease and disability.
8. Increase federally-funded public information programs on the hazards of smoking.

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Orrin G. Harch, Senator
United States Senate
Committee on Labor and
Human Resources
Washington, D.C. 20510

September 4, 1981

Dear Senator Hatch,

I enjoyed appearing before the Labor and Human Resources Committee. As per your request, I am responding to Senator Kennedy's question which is, "Have you had any discussions with federal officials regarding your recommendations for government action? If so, what response have you had"?

Unfortunately, I have had no response from any federal officials concerning my testimony during the hearings on Preventive Medicine and Health Promotion. I would be happy to elaborate on any of my recommendations to any interested party.

With best regards,

John Holbrook

John H. Holbrook, M.D.
Associate Professor
Internal Medicine

JHH/mll

Senator **Denton**. Thank you, Dr. Holbrook.

Ladies and gentlemen, I will have to leave to vote now.

Mr. Ward, do you have a statement to make?

Mr. **Ward**. Yes, sir.

Senator **Denton**. I will permit testimony to continue while I go to vote, and I shall return.

STATEMENT OF GRAHAM W. WARD, CHIEF, HEALTH EDUCATION BRANCH, NATIONAL HEART, LUNG, AND BLOOD INSTITUTE, NATIONAL INSTITUTES OF HEALTH

Mr. **Ward**. I think I am the last panelist of the day.

I will try to be kind on our blood pressures and our stress input by speaking as briefly as I can.

Hypertension or high blood pressure affects many Americans—we estimate about 60 million.

If it is not treated, it can lead to death and illness from heart disease, strokes, kidney failure, and some other conditions.

It has no symptoms ordinarily which reliably reveal its presence when discovered. It is rarely curable.

Although we have several suspects—sodium was mentioned by the Secretary—excessive weight and some others—we do not yet clearly know the cause of most high blood pressure.

Nonetheless, high blood pressure is easily and painlessly detected by a simple blood pressure test. It can be controlled in most cases by simple therapy, provided that the therapy is followed every day.

When controlled, the risk of high blood pressure-caused death and illness falls quite dramatically.

To carry this basic message to the Nation, as well as to improve our ability to control high blood pressure, the National Heart, Lung, and Blood Institute started two major efforts in 1972—the national high blood pressure education program and the hypertension detection and followup program.

This latter effort was a clinical trial that was completed about 18 months ago involving some 10,000 patients in 14 communities. Half of these patients were referred to usual care in the community, and the other half were placed in a very aggressive treatment program, given in special clinics, and were treated down to much lower levels of blood pressure than had typically been done in the past.

As I mentioned, that trial ended about 18 months ago. The study results showed a 17-percent lower death rate among patients treated aggressively than among those receiving usual care in the community, despite the fact that care in the community improved during that time.

Even persons with only slight blood pressure elevations appeared to benefit from this aggressive therapy.

It is not enough, however, for our Institute staff and for the investigators we supported for this project to know this information. That knowledge has to be made available to, and used by, care providers as well as their patients across the Nation. That is why we have the national high blood pressure education program.

The program is coordinated by our institute, but it involves many, many others—as the Secretary said, some 15 Federal agencies—for example, the Food and Drug Administration, the Veterans' Administration, the Office of Personnel Management, and the Health Services Administration participate in the activity. About 150 national organizations of a variety of sorts participate—the American Heart Association, Red Cross, the American Medical Association, the National Medical Association, the American Nursing Association, and the American Pharmaceutical Association. Virtually all State health agencies participate. We have been able to identify some 2,000 local programs dealing with high blood pressure control.

Private industry is also quite active, and I know that is a focus of the discussion today.

To give a few very quick examples, the Ford Motor Co., Johnson and Johnson, the Campbell Soup Co., many of the local telephone companies, and Bethlehem and United States Steel have hypertension programs. Others are becoming increasingly involved.

The pharmaceutical and insurance industries have long participated in helping the program. Certainly the mass media have been very important in conveying the message.

We have not enlisted everyone yet, but we are trying.

It is by coordinating these resources and not by direct funding that we do most of our work. Our institute does not provide direct dollar support to local groups for community high blood pressure programs.

We do bring representatives of these groups together to identify current issues and high blood pressure control and to develop jointly recommendations for action.

We provide technical assistance to local groups on the basis of these recommendations and also translate them into education materials which are disseminated through a high blood pressure information center.

Through our network of participants, we try to broker new ideas and successes among our participants, as well as new research information developed by other institute activities.

In this way, our few dollars at the institute leverage the larger aggregate of resources in local government and in the private sector.

The process of involving these non-Federal resources appears to work. Since 1972, the knowledge of the public about high blood pressure has increased appreciably.

The proportion of persons who have high blood pressure and now know about it has risen from about 50 percent in 1971 and 1972 to about 68 percent in 1974 and 1975. In some of the States, this figure is as high as 80 percent.

The national proportion having their high blood pressure controlled climbed also from about 15 percent when the program began in 1971 and 1972 to about 25 percent in 1974 and 1975, the latest date for which we have national estimates.

Again, it is higher in some of the States. Maryland, for example, estimates that some 55 percent of its hypertensives are well-controlled. California estimates 51 percent.

Deaths associated with high blood pressure have dropped, and that is our bottom line or our payoff for this program.

Particularly for strokes, as Dr. DeBakey mentioned, the age-adjusted stroke death rate has literally plummeted. It has dropped over 30 percent since 1972.

Thus, after a decade of coordinating such efforts, we believe the Nation has made very clear gains from investing in high blood pressure control. Our research suggests that still further gains are possible that are within our technological and our resource grasp.

We hope that further research will enable us to prevent high blood pressure rather than just to control it.

Some general types of things we have tried to employ in operating our program, which many consider successful, I would like to share with you quickly in conclusion.

We believe that other prevention efforts can have a similar positive outcome if the efforts follow some of these principles:

One, that the interventions used are based on sound, scientific research and have proven benefit.

Two, that the programs to implement these interventions are planned and managed on the basis of objectively collected data, rather than supposition and intuition.

Three, that adequate resources are invested over a realistic period of time.

Most preventable chronic disease develops slowly over decades. Demonstrating prevention intervention results fully will require a similar span of time. We will not see an immediate turnaround for many of these activities.

Four, that sound marketing principles are used to foster the adoption of these interventions. Contrary to the maxim, better mousetrap inventors usually do go broke because they do not know how to sell their wares. We have to learn how to sell ours effectively.

Finally, the activities and policies of all the participants who must be involved in such prevention efforts are coordinated into a whole, and that the coordinating group has widely accepted credibility among the people it must coordinate.

I hope this brief presentation has been helpful. We have been advised that questions may come to us, and we will be prepared to answer those.

Thank you.

[The prepared statement of Dr. Ward and responses to questions sent to him follow:]

FOR RELEASE
ONLY ON DELIVERY

STATEMENT

BY

GRAHAM W. WARD
CHIEF, HEALTH EDUCATION BRANCH
NATIONAL HEART, LUNG, AND BLOOD INSTITUTE
NATIONAL INSTITUTES OF HEALTH

BEFORE THE

COMMITTEE ON LABOR AND HUMAN RESOURCES
U.S. SENATE

THURSDAY, JULY 16, 1981

Mr. Chairman, I am very happy to have the opportunity to appear before this Committee today as you deliberate on the merits of disease prevention and health promotion, and the federal role in such activities.

I have had the privilege of helping to lead a major prevention effort, the National High Blood Pressure Education Program (NHBPEP). This program, aimed at reducing the death and illness associated with uncontrolled high blood pressure, began in 1972. It is not a funding program; we do not provide direct dollar support for hypertension control activities. Rather, the Program serves to coordinate the activities of its many participants (activities supported mainly by the participants' own resources), provides technical assistance, produces and distributes professional and lay educational materials, and sustains a communications network among the participants. After nearly a decade of effort, we believe tangible and sizeable changes for the better have been achieved.

Also in 1972, the National Heart, Lung, and Blood Institute (NHLBI) began (and completed in November, 1979), a major clinical trial, the Hypertension Detection and Followup Program (HDFP). This study was designed to further assess the benefits of treating and controlling high blood pressure.

I would like to summarize for you the results of these two programs and the lessons we believe we have learned that may be applied to other disease prevention efforts.

The NHBPEP, although coordinated by the NHLBI, is not a single agency activity. Rather, it is an ever growing coalition of some 15 Federal agencies; 150 national professional, voluntary and trade organizations; nearly all state and many local public health departments; and over 2,000 organized community programs. Insurance companies, pharmaceutical firms, and many other private industries play active and increasing roles in this program as do many organized labor organizations. Nor can I omit countless numbers of individual physicians, nurses, pharmacists, health educators and other health professionals in whose private offices most hypertensive patients are detected, treated and counseled. Hundreds of television stations, thousands of radio stations, newspapers and magazines have been important to the overall effort by carrying the hypertension control message to the nation.

If I were to complete this list in detail, it would sound as though we have involved the entire nation. Although we have not reached such a goal as yet, that is indeed our intent. Our best estimates, checked and rechecked, suggest that about 60 million Americans are at increased risk of illness and premature death due to elevated blood pressure. Only by marshalling a literal army can this staggering number of people be identified, brought under appropriately selected care, counseled, monitored, and helped to follow their therapy for virtually a lifetime. Hypertension control is by any measure a gigantic problem requiring a commensurately gigantic effort.

If you will allow me one last military metaphor, we have not yet won the war, but we pushed the front forward a long way. There are many indicators of progress. The NHLBI conducted comparison surveys for the years 1973 and 1979 to learn how much the public had learned about high blood pressure and its treatment and what it is doing with that knowledge. Some highlights from the comparison of 1979 to 1973 surveys, include:

- 16% more people know that hypertension is a very serious disease,
- 33% more people have come to understand that high blood pressure and hypertension mean the same thing,
- 19% more people know that hypertension can cause strokes,
- 66% more people know that normal blood pressure is less than 140/90,
- 27% fewer hypertensive persons had trouble getting life insurance,
- 43% fewer hypertensives missed work due to high blood pressure,
- 83%$^{(1979)}$ versus 78%$^{(1973)}$ of the public had their blood pressure checked within a year, and
- 82%$^{(1979)}$ versus 77%$^{(1973)}$ of hypertensives still take the medication prescribed for them.

A key indicator which has increased appreciably is patient visits for hypertension. Visits for hypertension rose 10% from 1972 to 1980 while visits for all causes actually fell 13% during the same period.

The proportion of persons who have hypertension and know they have this usually symptomless condition went from 51% in 1971-72 (immediately before the National High Blood Pressure Education Program was inaugurated) to 68% in 1974-75, the last year for which we have national data available. This is progress, but it leaves 32% of those with high blood pressure who still must be found. At the same time, what is perhaps our most difficult task--achieving long-term control--has begun to show substantial movement upward, from 16.5% under control in 1971-72 to 24.2% in 1974-75.

The real payoff, however, the goal of the NHBPEP, is the reduction of illness, disability and death from high blood pressure. I wish I could give you specifics on changes each year in the numbers of heart attacks, strokes and other complications of high blood pressure, but it is not currently possible to gather that information on a regular basis. A one time study by the National Institute of Neurological and Communicative Disorders and Stroke has suggested that the standardized incidence ratio of first strokes declined about 15% from 1971 to 1976 so it appears that we have some basis for optimism in that regard.

We do have information on mortality rates which is encouraging. The cause of death most closely associated with hypertension is stroke. The age adjusted stroke death has been dropping for decades--about 1 percent each year in the 1950's and 1 1/2 to 2 percent each year during the 1960's. Since beginning the effort to increase hypertension control in 1972, this decline has steepened to over five percent each year and continues to fall. Expressed somewhat differently, the age adjusted stroke death rate fell 30% from 1972 to 1978.

In honesty, I must point out that, although the temporal relationship is strong, we cannot flatly state how much hypertension control has contributed to this decline. Our citizens also smoke less, have changed their eating habits, are more physically active and receive better medical care. All these factors doubtless contribute as well. But we at the NHLBI and many of our research and clinical colleagues, knowing too well the ravages of uncontrolled hypertension, believe that its improved control has played a significant role in this change.

Although we are gratified by these striking changes, there is still much to be learned about the management of high blood pressure. It is for this reason that a clinical trial, the Hypertension Detection and Followup Program, was also launched in 1972. In contrast with many other research efforts and in keeping with the proportion of the hypertension problem, this was a sizeable trial involving slightly over 10,000 patients in 14 communities across the nation. Half were given care in special clinics following an aggressive treatment protocol and half were referred to usual sources of care in the community.

The results, released about 18 months ago, were quite positive. Some 17 percent fewer deaths were seen among the patients receiving aggressive treatment despite the fact that the number of patients achieving good blood pressure control from community sources also increased over time, although to a lesser extent. For the first time, mainly due to the large numbers of patients in this study, clearer benefits were observed at lower elevations of blood pressure than had previously been demonstrated. Given the fact that 70 percent of hypertensives are in the so-called "mild" range and, to a large degree, have not been under vigorous treatment, the potential for further lifesaving is great. In fact, some HDFP investigators have estimated that an additional 60-to-80,000 lives could be saved each year if the lessons of HDFP were effectively applied to existing high blood pressure control efforts.

One reason for the success of this trial was the ability of the 14 special treatment centers to keep patients in care. Patient drop-out and failure to adhere to treatment regimen has traditionally been a major barrier to improved hypertension control in the nation. To share the approaches that were used and to explore the practicality and implication of promoting these approaches for general use, the NHLBI held a two-day workshop this past Monday and Tuesday. Some 100 researchers and clinicians from all parts of the country attended. Interest was high. The discussions were intense. We plan to publish and to otherwise disseminate these discussions as widely as possible.

In summary, I believe we have demonstrated clearly through these efforts--and through other hypertension related research--that the nation has gained from controlling high blood pressure on a massive national scale and that there are further gains to be made which are well within both our technical ability and our available resources.

The years of experience in persuading the nation to take action on hypertension control have yielded, we believe, some general principles that are applicable to many if not most prevention efforts. Briefly, these are:

Strong Science Base -- The ultimate success of any prevention effort can be no greater than the effectiveness of the intervention used. With only few exceptions, most of the technologies or approaches used to prevent disease must be used by a very large proportion of our individual citizens. Promotion of such wide-scale application, irrespective of how small the unit cost may be, requires a relatively high degree of certainty that the approach does provide a benefit commensurate with its cost and with its risk. Assessing these attributes usually requires an indepth understanding of the abnormal disease process. This, in turn, requires an understanding of normal body processes.

Hypertension represents an excellent example of this issue. Although we have gained enough understanding to control this condition and to prevent in large measure its complications, we cannot now prevent or cure hypertension itself because we do not know its cause or causes. Such primary prevention, rather than the secondary prevention offered by control, is our ultimate goal.

Program Data Base -- Before we could move effectively to increase hypertension control through public and professional education, we had to ascertain how many people have hypertension, knew they had it, were being actively treated and were well controlled. We had to assess knowledge levels of the public, patients and their care providers. We had to determine what organizations and agencies were already pursuing hypertension control and what they were doing. We had to learn what sources all these people turned to when they wanted the kind of information we had to give them. Thus, in addition to scientific knowledge, it is our experience that before engaging in any activity, be it major and sweeping or detailed with limited scope, a critical mass of operational information must be obtained. Sufficient, clear data must be obtained to allow identification of problems and sub-problems to permit the setting of concrete objectives and to allow the problem, its nature and extent to be shared with and understood by many. It is necessary to gain knowledge on the range of intervention options which are available and the extent to which these options have been tested and proved beneficial. Equally essential is identification of who--organizationally or individually--is in a position to effect the interventions, what specific roles they must play and what skills they must have to play these roles. Redundant communication channels to reach these various actors must be identified so that they may be made aware of the problem and their potential roles in its solution.

A further reason for explicitly defining a problem and its components is the need to develop measurable indicators of progress. It is impossible to track progress in solving any problem if one does not well understand its starting status.

Realistic Time Frame and Expectations -- Another lesson learned in the operation of the National High Blood Pressure Education Program is the value of seeking progress in small increments. Hypertension control requires that four broad functions are completed: detecting the person who has high blood pressure, bringing that individual under active care, selecting the best treatment for that individual, then maintaining that therapy--usually for life. We have been unable to move the nation to address each of these steps simultaneously with equal vigor. That is why we have more people detected (aware of their condition) than controlled.

As a general concept, we have concluded that major social problems are usually not subject to revolutionary change. Rather, to maintain stability within a system and to achieve accepted change that is lasting, an evolutionary, incremental process must be established. A precondition to success of the evolution is a commitment to sustain the effort for the required period of time and to engender among Program operators and Program service recipients a high degree of patience, tempered by realistic expectations of the achievable rate of change. Had the National High Blood Pressure Education Program been forced to demonstrate a major impact after the first, second, or even third year of operation, as a basis for its continued survival, the Program would not be alive today.

Leveraging Resources -- It was clear from the beginning of our effort that the NHLBI would never have sufficient resources to solve, singlehandedly, the problems in hypertension control that had to be met. From literally the first day of the NHBPEP, we worked to recruit the resources of other parties, to use our dollar to move the greater amount of dollars others had. We have come to call this by the financial term, leveraging.

Leveraging can take many forms. One known to persons familiar with research, particularly operations research, is the Hawthorne Effect. Very loosely translated, the Hawthorne Effect means that just letting people know you are interested and watching can influence a situation. The relevance of this to the National High Blood Pressure Edu cation Program is the observation that making widely known the Federal interest in hypertension control, legitimizing the issue by lending it credibility, is an important facto in achieving the changes associated with this Program. Although support for action is inarguably important, massive outlay of Federal dollars is not always the most effective way to bring about some changes. An example of this is the response to the Report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. The support cost for producing and distributing this committee report was miniscule in terms of typical Federal outlays. Yet, the interest and change generated by the output of this Committee has likely been very great in stimulating medical interest.

A second leveraging approach is use of the consensus process. If a wide variety of persons or organizations must make a similar response to a similar problem, inviting active participation of those organizations to define the problem and recommend the response greatly increases the likelihood that the organizations will perform as desired. Such developmental participation also tends to make the organizations advocates of the recommendations and expands the cadre of communicators and persuaders on the issue. Consensus also has some disadvantages. It is a slow process. It also usually requires compromise among those involved. Thus, the result is only rarely "the best". Rather, it is as good as is possible at the time. Reiterations of the process over time must be done to approach the optimum gradually as people gather new information or become accustomed to new ideas and find them workable.

The typical approach to leveraging is persuading other organizations to use their influence or resources to advance one's own cause. This approach is successful only to the extent that the organization being recruited can genuinely profit in some respect by participating. Altruistic motives are usually short lived and too fickle to be dependable. A clear profit motive--increased productivity, increased sales, improved visibility in the community or market area--are much more solid bases for sustained effort. The NHBPEP has been very fortunate in finding partners who could perceive such a payoff--local governments, voluntary agencies, professional societies, labor unions and a host of commercial enterprises. Indeed, a good 90 percent of the resources now being applied to hypertension control come from these partners, not the Federal government.

Source Credibility -- Another major lesson learned by the Program is the importance of source credibility. Thus far, most persons would agree that the NHBPEP enjoys the reputation of having its facts in order. Although this Program does not always move rapidly, it undeniably moves surely. The time invested to complete the homework necessary for thorough problem analysis has consistently proved to be an investment with high payoff.

Minimizing Directives -- Closely associated with source credibility is another approach which has been long used by the Program and which has high receptivity. This involves avoiding an overly directive approach--which would be resisted--by using questions rather than answers. Since the inception of the Program, we have experienced an incessant demand for planning models. Because the situation in a given community or organization is so unique in terms of level of interest, resources available, relations among organizations and communities, distribution and availability of health care services and a variety of other aspects, no single model nor even a series of several alternative models has adequate specificity. Recognizing this inadequacy of models--which are in effect proposed solutions or answers to a problem--the Program early on turned to a mode which employed questions rather than answers. If a community sought assistance in a total or some sub-aspect of hypertension control, Program staff attempted to supply a list of key questions which, if answered from the unique perspective of that community, would provide that community with its own unique and specific operational model.

It turns out, not unsurprisingly, that states and communities are filled with bright, energetic people. They strongly resist having an externally made solution to their problems forced upon them. Given a modicum of help to sort their problems into manageable pieces, they frequently develop highly imaginative solutions that could be conceived only by an insider. This approach has been effective in at least two ways: 1. communities or organizations would not delay exploring hypertension control opportunities because the proffered model did not clearly fit their situation; 2. the use of questions did not create the appearance that the Federal government was telling communities what to do but, rather, was offering useful assistance.

Emphasis on How To -- A further lesson to be learned is that this is an educational not an informational program. This distinction is important. Providing information that a problem exists and describing its parameters is rarely adequate to achieve appropriate action on the part of the many individuals who must act to solve the problem. Insofar as the state-of-the-art permits, the Program has made a clear effort to emphasize skills teaching, to transmit not only information but capabilities. Such an effort requires greater time to develop and greater time to market, but this effort must be made. If people understand only what is to be done but not how to do it, the only action one may obtain is the wringing of hands and the issuing of exhortive statements. Only by continuing to teach "how to" skills will any program achieve its goals and establish a legacy of ongoing, productive action that is not dependent on government.

Using What We Have -- I cannot understate the importance of using the existing health care system rather than attempting to establish a separate and distinct prevention care system. Efforts to achieve the latter would result only in frustration arising from further fragmentation of care and the development of activities which are unlikely to become self-supporting. Until the entire structure of the health care delivery system in the U.S. is modified, we must continue to recognize that there is but one health care system and that its primary mode of support is fee for service. Hypertension or any other preventive care must be solidly integrated into this system. Any other approach will only create unending demands for extra, massive support which our society cannot provide on the necessary, sustained basis.

The Need to Sell -- The world does not automatically beat a path to the better mousetrap inventor. Research can sometimes be an expensive process, but none-the-less one which brings a several-fold return on investment if its results are applied. Scientific knowledge, like any other commodity in our economy, must be marketed if it is to be adopted rapidly and widely. This implies a further, post-research, investment to make the marketing--dissemimination if you prefer--happen. The resources required are not large, in contrast to most federal expenditures or to the results achieved. Neither are they inconsequential. For the past five years, our educational effort in hypertension has cost about $3 million each year. That's equivalent to 5 cents a year for each of the 60 million Americans at risk due to high blood pressure. We have begun to taper that amount down as more and more private sector resources become permanently invested in high blood pressure control.

It is difficult to establish a formula which automatically specifies the level of needed resources for a prevention effort. Nor can one usually predict at the outset the likely mix of public and private investment needed to enhance success. It seems clear to us, however, that establishing a core effort in government is indispensible.

In the case of the NHBPEP, the core funding level was determined primarily by determining coordination requirements: identification of the sectors in society whose activity was needed and the functions required to link those sectors. Because many elements in our society do not normally interact directly, we believe a legitimate Federal role, the role our Institute has adopted, is serving as a linchpin--brokering information, experiences and ideas among these disparate elements. More of our Program budget is used for this purpose than for direct production of educational materials which can be and are increasingly produced by local government and the private sector. Although our dollar investment has not risen substantially over the years, the dollar investment of those in the private sector who have been persuaded to join the overall effort has rapidly multiplied.

Again, I do not pose our solution and our approach as a general one. Other problems may require different solutions. I am quite convinced, however, that investing relatively trivial amounts--$10,000 for a brochure or $100,000 for a film--without a sustained and integrated program, is money lost.

In summary, I believe prevention efforts can succeed in a cost effective fashion provided that:

1. the goals sought have proven value which has--and will--stand the test of time,
2. the interventions used have proven value,
3. program planning uses data rather than intuition to the extent possible,
4. adequate resources are invested over a realistic period of time,
5. sound marketing principles are used, and
6. the activities and policies of disparate participants are coordinated into a whole, and that the coordinator have widely accepted credibility.

I hope these observations are helpful to the Committee. If I can respond to any questions, I would be pleased to do so.

FROM SENATOR KENNEDY

Question 1: You mentioned that patient drop-out and failure to adhere to treatment regimen has traditionally been a major barrier to improved hypertension control. This same type of problem would probably occur with attempts to change lifestyle practices of individuals. Do you have any recommendations from your experience with patient drop-out in hypertension that can be used in preventive medicine and health promotion programs.

Answer: The challenge of promoting behavior change among essentially healthy persons is somewhat different from working with a hypertensive patient under the care of a therapist. The patient-provider relationship, a potent lever for maintaining anti-hypertensive therapy, is often not present in a health promotion situation. Physicians and other health care providers can serve as occasional reinforcers, but their contact with healthy people is too sporadic to be a primary element.

Nor should we be overly swift in placing the task of prevention on these providers. Their training, as it is currently designed, prepares them primarily to make critical diagnostic and therapeutic decisions regarding a present disease. Although health care personnel must be strong and cooperative allies, we must look to other resources as the mainstay of prevention efforts.

There are, nonetheless, some regimen adherence principles that can be well applied to health promotion and prevention. A key idea is moving people slowly one small step at a time. Many of our unhealthful habits are made up of several elements. Moreover, we like them and are unlikely willing to shed them wholesale in a single instant. Changing diet is a good example. All high caloric (fat and sugar loaded) foods need not be abandoned at once or forever. The daily dessert lover might begin either by substituting fresh fruit or just having dessert every other meal. This small step means a 50 percent reduction in calories from that source. The habitual salt shaker might start by salting only one item on the plate instead of everything, thus getting accustomed to the natural taste of many foods without being totally deprived.

The second principle is having a concrete plan; identifying a sequence of several small steps and time schedules on which to introduce them. Putting this down on paper is much like making a contract with one's self. Research shows that this planning, contracting approach works for many people. Among reasons why it works are because it is specific, not a value "I'll do something, someday" and because it sets milestones so people can see and be pleased with the progress they are making.

A plan is of little use, however, without the knowledge and skills required to put it into action. Too many so-called health education efforts spell out a problem and its solution with great detail, but never teach people how to perform the actions the solution requires. To adopt successfully a low sodium diet, a patient must know more than the physiologic effect of sodium, its role in hypertension and a superficial list of foods called a diet. Patient and family must be helped to learn how to shop, to read labels, to contend with restaurant menus, and to cook in a different but still enjoyable way. What-to-do knowledge must be combined with how-to-skills.

Another principle is changing the environment. Sometimes people can do this themselves. Often some "power" in society must help. Take exercise as an example of the latter. A typical worker arises at 6:00 a.m., leaves for work at 7:00, has a 30 minute lunch break about noon, leaves work at 5:00, arrives home at 6:00, eats and helps clean up dinner at 7:00, does household chores and sorts out domestic problems until 8:00 when its time to start the often lengthy process of getting younger children ready for and into bed. By 9:00 p.m., the day is finally squared away. It is also nearly over. When does this typical worker find the time for an *enjoyable* 30 to 40 minutes of daily, vigorous, heart-strengthening exercise? The scenario is real. It is compounded in families in which both spouses work or in which one holds two jobs to make ends meet a little more closely.

One partial solution is changing the work environment. Longer lunch periods (say one hour and 15 minutes, but still keeping eight hours of actual work) and a showering up facility would encourage many to walk, jog, bicycle (if secure bike storage is possible) or otherwise be active at mid-day. Employee morale and productivity probably would rise. Health related costs for the employer may even go down due to potential drops in absenteeism and fewer medical claims from healthier employees. Are a clean shower stall, a bike rack and time to use these exhorbitant employee luxuries or low cost, high return health investments? There is no guarantee of payoff, but the odds are favorable enough that the Ford Motor Company, for one, is trying it.

The last major point I'd like to make is the need for reinforcement. It is not enough to tell someone once and expect that telling to last a lifetime. Elephants may never forget, but people do and need reminding. They also like--and need--to know they are making progress and that that progress is appreciated by others.

Reminders can take many forms. Labelling foods, for example, as higher or lower caloric, higher or lower sodium not only helps consumers make food choices, it also helps remind people that these characteristics are important, that foods are different, and that choices can and must be made.

Giving positive strokes, encouragement, on a society-wide basis is more difficult, but still possible. Recognizing that a word of encouragement or praise from a spouse, colleague or authority is worth more than a thousand brochures, we have used an approach in our hypertension education TV and radio materials that both shows and urges this kind of action by those who know a hypertensive patient. This approach can certainly be applied to the content issues in prevention.

A final word of caution. Something else we have learned in dealing with this problem in hypertension is that--in every study we have ever done--no *single* step is *the* answer. Almost everything works to a limited degree. The closest we can come to defining the magic bullet is persist~~a~~ence--to keep trying until the additive effects of our efforts begin to get the job done.

Question II: Do you think that the marketing techniques learned from the hypertension experience can be applied to the more general area of preventive medicine and health promotion?

Answer: I believe very strongly that the marketing approaches we have learned in our hypertension experience are not only applicable to, they are central to success in prevention and health promotion. As I mentioned in responding to the previous question, we must look to resources other than health care providers as the mainstay of prevention and health promotion, especially the latter. The primary resource I had in mind is leveraging the existing marketing forces in our economy.

We must employ skillfully the priciples of marketing summarized in the classic four "p's" of that discipline: product, price, place and promotion. Promotion is an essential ingredient, but too often we focus only on our "pitch". We neglect to note that the product we exhort does not meet a need recognized by our potential buyer, thus, no amount of spiel will sell it on a sustained basis. We are insensitive to the fact that people may want one of our products, but the dollar or time and energy cost is prohibitive or the product is not available at a time or location that coincides with buyers usual schedule and travel pattern. In short, we compete half-heartedly in the marketplace by offering transactions that don't benefit our customers. I have heard literally hundreds of health professionals assert that health education does not work. This is not true. It is our--and their--poor application of that discipline that does not work.

Let me give some examples of employing marketing strategy starting with price. There are two ways of dealing with price, to reduce it or to increase the value of what the price buys. In my exercise example in the previous question, providing mid-day opportunity and facilities lowered the price (convenience cost) of regular physical activity. In our hypertension education work, we tried to raise the value of taking anti-hypertensive medicine, not by a death avoidance argument (who can really envision their own death especially on an every day basis?) but by emphasizing the joy in seeing one's children find their futures and enjoying retirement years with one's spouse.

Mention marketing promotion and the mind leaps at once to mass media. These channels are frequently used and do much to help make large numbers of people aware of "options" in the prevention marketplace. There are, however, other promotional means with significant impact but rare usage. Consider seat belts.

Most people are aware of the option. Skill requirements are nominal as is dollar cost. Availability is near universal in private vehicles (and nearly absent in ground mass transit!!). Promotion seems, then, the only handle but previous mass media efforts have been notable failures. What about in-car promotion? Warning buzzers have been installed and do contribute for many people. Further in-car promotion can come from already motivated drivers and riders who politely but assertively ask others to "buckle up please".

This latter strategy of personal persuasion should not be underrated. Cigarette smoking cessation progressed at a glacial rate, I believe, until non-smokers were activated. FTC reports to the contrary notwithstanding, we have seen some measurable changes in the last decade.

A vivid example of manipulating the product to achieve prevention ends is the now widespread use of childproof closures on medicines and toxic household products. Low yield cigarettes, though only a halfway measure, is another. Low sodium, low fat or low caloric varieties of foods and flouride toothpaste are further examples. A less obvious product change (services are "products" too in the sense used here) is evening clinic hours so working parents can have their children vaccinated.

The current and growing interest in health promotion through the worksite underlines the value of place in marketing prevention services.

In summary, we are never likely to be 100 percent successful, but we can do far better at prevention and health promotion if we design related products and services in light of consumer wants and needs, if we are sensitive to all the costs to the user, if we make our products and services available when and where consumers are, and if we use effective channels to promote our wares. The methodology works; it is not new. The only thing new is our awareness of its value in the field of health.

Dr. KESSLER [acting chairman]. Mr. Ward, thank you very much.

Senator Hatch and Senator Denton and the other members of the committee asked me to apologize for their being called to the floor for a vote. They have asked me to assure you that they will read your testimony in detail.

Because of time constraints, the members of the committee will submit to each of you questions related to your testimony. We will appreciate your responding in writing to those questions, and those answers will be submitted to the official record.

Senator Denton has asked me to recess this hearing until 9:30 tomorrow morning. Thank you all for coming.

[Whereupon, at 5 p.m., the committee recessed, to reconvene the following day at 9:30 a.m.]

PREVENTIVE MEDICINE AND HEALTH PROMOTION, 1981

FRIDAY, JULY 17, 1981

U.S. SENATE,
COMMITTEE ON LABOR AND HUMAN RESOURCES,
Washington, D.C.

The committee met, pursuant to recess, at 9:35 a.m., in room 4232, Dirksen Senate Office Building, Senator Orrin G. Hatch (chairman of the committee) presiding.

Present: Senators Hatch and Denton.

The CHAIRMAN. We will begin our second day of hearings on preventive medicine and health promotion, and I would like to welcome you to the full Committee on Labor and Human Resources and our hearings on preventive medicine and health promotion.

As yesterday, we have again assembled a distinguished group of physicians and experts in health care to provide testimony, and these hearings, as we mentioned yesterday, have been cosponsored by our Commission for Responsible Health Policy, and our first speaker, representing the Commission, is Dr. John Gillespie.

Dr. Gillespie is a surgeon who served on the faculty of Georgetown University School of Medicine and is now president of Georgetown Consultants.

We are delighted to have you here, Dr. Gillespie, and if you would come to the witness stand and give us your testimony we would be very pleased to hear you.

STATEMENT OF JOHN F. GILLESPIE, M.D., PRESIDENT, GEORGETOWN CONSULTANTS

Dr. GILLESPIE. Good morning, sir.

Mr. Chairman and members of the committee, the experience that the Senator just talked about as being a heart surgeon and a health care consultant has taught me that there are many deficiencies in today's health care system.

After spending 15 years as a consultant, these deficiences are quite obvious to me, and I do not wish to list them, but I think the time now is ripe for a change. The change is going to be prevention. This is prevention of diseases, illnesses, and certain medicines.

For decades, the American public has accepted the medical practice which is totally dominated by the physicians in which there have been only diagnosis and treatment of acute medical or surgical crises.

Now we are aware that these ailments and maladies can be avoided by alterations in certain lifestyles, becoming educated in the promotion of good health, and by the administration of specific medicines.

Such knowledge and activities are termed "preventive medicine" in which good health is primary, while the diagnosis of diseases is secondary and the treatment of disease is tertiary prevention of death.

In other words, this new era that we are referring to downgrades the conventional type of medical practices of today from a primary emphasis to a secondary or tertiary position.

Prevention of disease is not new. It was practiced in the biblical times as the inspection of meat by rabbis to eliminate diseased animals and to render their flesh consumable.

Likewise, we are aware of the great strides made since the middle ages by way of vaccination for smallpox, cholera, typhus, and now even polio, and possiby viral diseases.

In addition, the public health policies of water purification and sanitation have prevented epidemics which in the past have eliminated races.

But why, in this technological 20th century, have not specific preventive measures been utilized to prevent diseases which are prevalent now? Why have we established such professions as husbandry and horticulture which prevent diseases in animals and plants and ignored the prevention of diseases in humans?

The answers to this lack are numerous, but I would like to just dwell on three major causative issues.

First, traditionally, physicians and medical education have concerned themselves in the past with just restoring health from illness. Little of the physician's time or training or the Federal health dollars have been devoted to maintaining health in spite of the significant potentials for doing so.

This is not to say that traditional medicine is good for nothing, only that it is not good for everything. Today's economic pressures emphasize even more the need for a basic rethinking of health priorities in this Nation.

Traditional therapeutic medicine, important as it is, has reached a point of diminishing returns. What is needed is a better balance of health initiatives more closely related to actual individuals and national health needs.

Currently, approximately 4 percent of the Federal health dollar is specifically identified for prevention of related health activities. Even today, the Reagan administration is proposing to reduce the health service programs by 10 percent or more, including a $45 million cut in the preventive health services under the Center of Disease Control.

The second reason for the lack of change is that Americans themselves avoid health and illness in favor of the ideals of youthfulness and unrestrained personal freedom in much the same fashion as they avoid the issue of death.

Unfortunately, responsibility, not fatalism, is the attitude and value that must flourish anew if Americans are to grow healthier.

In America, the individual and his family are by no means involved in its health diagnosis or therapy. The Western system is physician centered, and so are its consumers.

The physician and patient relationship places emphasis on the patient's history, but beyond this the patient is a passive entity.

Traditionally, according to our cultural mystique, the patient, relying on the physician's expertise, waits for the doctor's verdict. By the same token, third-party reimbursement procedures also disassociate the patient as a consumer in the health care market.

The third issue is that there is a limited amount of basic and clinical research in preventive medicine, particularly in regard to noninfectious disease. As Dr. Eliot explained yesterday, there appears to be a suspicion that there might be a causative factor which may be preventable in the association of psychological stress and today's chronic diseases such as arteriosclerosis and coronary thrombosis.

But because this relationship has not been thoroughly or academically researched, the physicians today treat stress with tranquilizers rather than altering the neuroses or psychoses of these patients. The result is that over 30 million people in the United States are on tranquilizers while the pathology may be allowed to progress.

Of course, this is not to say that stress causes arteriosclerosis or other chronic disease, but it may be a factor in some cases, and basic research is necessary to prove or disprove this and similar possible risk factors.

Broader data base and more evaluative outcome research on health promotion programs must be initiated and expanded. Federal, State, and private funding should be structured to provide incentives for these studies and health promotion.

Summing up, the challenge of the 1980's will be to respond to the economic and medical illnesses of the system with new initiatives. The 1980's will be an opportunity for physicians and allied health professions, consumers, and third-party payers to assume new roles and responsibilities in a new health care system that is dedicated to better and more productive lives with reduced mortality and cost.

Yesterday and today, knowledgeable professionals have or will present the status of health promotion in preventive medicine as we know it today. It is hoped that this initial hearing will stimulate subsequent hearings on specific preventive measures. But, more importantly, it is hoped that these hearings will result in demands or means for the establishment of private or federally funded institutes for basic and clinical research in preventive medicine.

Mr. Chairman, you and your committee would do a great service to the health care of the country by promoting preventive medicine research which will demonstrate to the public and prove to the medical profession that prevention is the way to go.

Thank you for permitting me to express my views.

The **Chairman**. Thank you, Doctor. We appreciate having you here today.

One of the things that I think we fail to see is that really billions are being spent in some way for preventive medicine. I look at the National Cancer Institute, which I do not want to see reduced in any way. We are spending about a $1 billion a year there, and some of that, of course, is spent for prevention.

In almost all other Federal programs, there is some, but I think what you seem to be saying is that we really need to focus our efforts, purely and simply in many respects, on prevention itself as a medical way of life rather than just as an afterthought, which is about the way it is today.

Dr. GILLESPIE. That is correct, Senator.

Being basically a medical researcher, I am rather optimistic that doctors and the profession respond to research. Research is what produces the treatment for the diseases.

We spend a lot of money on treatment of diseases, but we have to know the causes, and prevention—you look at it as just another disease, or it should be researched, and physicians will respond if it is demonstrated that this is correct.

The CHAIRMAN. I appreciate your testimony and your experience as a surgeon.

You have indicated, of course, this need for a new direction in prevention, but we have heard that there are many worthwhile efforts now going on in prevention and medicine.

What do you recommend the Commission for Responsible Health Policy could do right now to improve prevention, and how might this committee help you?

Dr. GILLESPIE. As I said, Senator, the medical profession is sort of odd; doctors are odd. They do not believe unless it is proven that this is correct. Prevention has not been taught to the medical profession, and therefore prevention was not taught to the people.

If we can establish an institute—and again I get back to research—that proves to the medical profession that stress may cause some arteriosclerosis—if you can prove that association that is acceptable to the profession, the profession will teach it, and it will advance prevention.

The CHAIRMAN. I see.

I notice that just the publicity given to the fetal alcohol syndrome as a result of the hearings held by this committee over the last number of years has resulted in front page stories just today—that women should not take alcohol during their pregnancy term.

Dr. GILLESPIE. That is correct.

The CHAIRMAN. That is a way that this committee can help you.

Dr. GILLESPIE. But also you read in the paper that everything causes cancer—which is true.

The CHAIRMAN. I suppose that is true. I guess you could eat that wall and you would get cancer from it if you ate enough of it. Maybe you do not have to eat very much of it.

Dr. GILLESPIE. That is true.

The CHAIRMAN. Do you feel that the Federal Government and the Senators on this committee should be interested in more Federal funding for prevention purposes, or should we try to enhance, through legislation or otherwise, the development of private funding and private research in prevention?

Dr. GILLESPIE. I personally believe that the real answer is a combination of private and public funding of research. In health care, we have depended too long on the Federal Government in funding medical research, and there is an abundance of private sources that has not been tapped. I think a combination of Federal and private sources is the way to go.

The CHAIRMAN. I think sometimes we spend so much for bureaucracy here in Washington that we eat up all these funds that could really go into very effective uses in bureaucratic payments instead of actually accomplishing the preventive health purposes that you have been talking about here today.

I do not know how you hit the happy medium, but every time that you have a bureaucracy that becomes entrenched, then the bureaucracy eats up a high percentage of the money without the benefits really coming that much to the people.

I will never forget, I had to speak to 6,000 handicapped people not too long ago. Of course, a lot of the Federal bureaucracy was there—at least the leadership of the bureaucracy—and this was right in the middle of the proposed Reagan cuts, which are not even half of what the increases were between 1980 and 1981. It is certainly a radical change from what it has been in the past where all we did was spend, spend, spend, and tax, tax, tax, as was explained during the Roosevelt administration. Certainly, that is what has happened for the last 50 years.

I was standing there, and these people were commiserating about the cuts, and here are all these poor handicapped people sitting, standing, and milling around.

Finally, one of these bureaucrats said—and a highly paid one at that—"Look, let's forget about the handicapped; let's worry about ourselves." They are worried about their jobs. They are worried about $50,000-a-year jobs coming in—some of them—rather than maybe what they were really hired to do and what they were really supposed to do.

I do not mean by that to demean all Federal workers or all bureaucrats here in Washington—they are necessary, and there are some tremendous things done—but I think I do want to make the point that the more you get the Federal Government into it, at least from a managerial standpoint, the more management you have and the less research and prevention you accomplish.

Dr. **Gillespie**. That is exactly right, sir.

The **Chairman**. I would like your group, and you in particular, along with others who have testified before us, to see what you can do to come up with some suggestions for us on this committee as to how we might accomplish the best goals of preventive health medicine while, at the same time, having those moneys go in the best possible way.

If you can help us with that and we can arrive at some real solutions to that problem, I think there are lots of ways that this committee can help. We are working on that, too, so we will work in tandem, if not jointly, and see what we can do because I think all of us agree that prevention is really a very, very important part of medicine today and we have got to make it even more important.

Dr. **Gillespie**. We will be pleased to work with you on that.

The **Chairman**. Thank you. We appreciate your testimony here today. Thank you for coming.

Without objection, your prepared text will be inserted in the record at this point.

[The prepared statement of Dr. Gillespie follows:]

Witness Testimony From
John F. Gillespie, M.D.

Mr. Chairman and members of the Committee, I am Dr. John F. Gillespie, member of the Commission for Responsible Health Policy and President of Georgetown Consultants, a health professions planning and management firm with offices in Washington, D.C.

In the latter category, for the past fifteen years, I have devoted my full time efforts to the improvement of the health care system, primarily by way of introduction of innovative changes in facility development and management. This experience has made me acutely aware of the present deficiencies in the United States method of delivery of health care.

Prior to this time, I was affiliated with Georgetown University Medical Center for over 25 years. As Assistant Professor of Surgery, I spent the bulk of my academic career in heart surgical research and other aspects of cardiovascular surgery, working with Dr. Charles A. Hufnagel, the Professor of Cardiac Surgery.

I am, or have been, a member of many professional groups; such as American Medical Association, Washington Medical Society, American Association of Hospital Consultants, Association of American Medical Colleges, American Hospital Association, American Heart Association and the International

Hospital Federation.

To open this second session of the hearings on Health Promotion and Preventive Medicine, as a Commission member, I would like to present an overview of the opinions held by many of the medical profession as well as those of the public.

The timing appears to be ripe for a new era of American health style and this is broadly termed - PREVENTION - Prevention of diseases, illnesses and medicines.

For decades the American public has accepted the medical practices dominated ~~suggested~~ by the physician in which there was only diagnosis and treatment of medical or surgical crises.

NOW - we are aware that many of these ailments and maladies can be avoided by alteration of certain life styles, becoming educated in the promotion of good health, as well as the administration of specific medicines.

Such knowledge and activities are termed Preventive Medicine in which good health is primary, while the diagnosis of diseases is secondary and the treatment of disease is tertiary prevention of death. In other words, this approach down grades the conventional medical practices of today, out of a primary position, into a secondary or tertiary position.

Prevention of disease is not new - it was practiced in Biblical times, as the inspection of meat by Rabbis to eliminate diseased animals and render it fit to consume.

We are all aware of the great strides made since the Middle Ages by way of vaccinations for small pox, cholera, thyphus - and now even polio and possibly viral diseases.

Needless to say, the public health policies of water purification and sanitation has prevented epidemics which in the past had eliminated races.

But - why in this technological twentieth century have not specific preventive measures been utilized in diseases which are prevalent NOW? Why have we established professions as husbandry and horticulture which prevents disease in animals and plants - and ignored prevention in humans?

The answers to this lack are numerous but I would like to dwell on three major causative items. 1) Traditionally, physicians and medical education has concerned itself with restoring health from illness. Little of physician's time or training, or the federal health dollar have been devoted to maintaining health in spite of the significant potentials in doing so.

This is not to say that traditional medicine is good for nothing, only that it is not good for everything. Today's economic pressure emphasize ever more the need for a basic re-thinking of health priorities in this nation. Traditional therapeutic medicine, important as it is, has reached a point of diminishing returns. What is needed is a better balance of health initiatives more closely related to actual individual and national health needs.

Currently approximately only 4% of the federal health dollar is specifically identified for prevention related activities. Even today, the Reagan administration is proposing to reduce the health service programs by 10% or more, including a $45 million cut in the preventive health services under the Center for Disease Control.

2) Americans avoid health and illness in favor of the ideals of youthfulness and unrestrained personal freedom in much the same fashion as they avoid the issue of death. Unfortunately, responsibility, not fatalism, is the attitude and value that must flourish anew if Americans are to grow healthier.

In America, the individual and his family is by no means involved in his health, diagnosis or therapy. The western system is physician centered and so are its consumers. The physician and patient relationship places extra emphasis on the patient history, but beyond this, the patient is a passive entity. Traditionally, according to our cultural mystique, the patient, relying on the physician's expertise, waits for the doctor's verdict. By the same token, third party reimbursement procedures also,dis-associates the patient as a consumer in the health care market.

3) There is limited basic and clinical research in preventive medicine, particularly in regards to non-infection diseases. As per example, there is a suspicion that there may be partial causative factors which may be preventable in the association of psychological stress and today's chronic diseases, as arteriosclerosis and coronary thrombosis. But because this relationship has not been thoroughly and/or academically researched, the physicians today treat stress with tranquilizers rather than altering the neurosis or psychoses of the patients. The result is that over 30 million Americans today are on tranquilizers while the pathology may be permitted to progress. This is not to say that stress causes these chronic diseases, but it may be a factor in some cases, and basic research is necessary to prove or disprove this and similar possible risk factors.

Programs, strategies and techniques of risk factor identification, estimation and reduction are fast becoming more soundly based and are beginning to be viewed as cost-effective tools in the identification of chronic disease precursors with the initiation of measures for intervention.

But, broader data bases and more evaluative outcome research on health promotion programs must be initiated and expanded. Federal, state, and private funding should be structured to provide incentives for these studies and health promotion.

Summing up the challenge of the 1980's will be to respond to the economic and medical ills of the system with new initiatives. The 1980's will be an opportunity for physicians, and allied health professionals, consumers, and 3rd party reimbursers to assume new roles and responsibility in a new health care system that is dedicated to better and more productive lives with reduced mortality and cost.

Yesterday, and today, knowledgeable professionals have or will present the status of health promotion and preventive medicine as we know it today - it is hoped that this initial hearing will stimulate subsequent hearings on specific preventive medicine measures, but more importantly, it is hoped that the hearings will result in demands for the establishment of a private or federaly funded Institute for Basic and Clinical Research in Preventive Medicine.

Mr. Chairman, you and your committee could do a great service for the health care of the country by promoting preventive medicine research which will demonstrate to the public and prove to the medical profession, that prevention is the way to go.

Thank you for permitting me to express my views.

The **Chairman**. Our first panel today will discuss how we might help the individual achieve wellness. Unfortunately, too many of our efforts have been directed at disease, often the result of poor health habits or ignorance. Therefore, I am pleased to introduce three physicians who are dedicating much of their work to helping us achieve a high level of wellness in America and perhaps throughout the rest of the world.

Our first speaker will be Dr. William Foege, Director of the Centers for Disease Control in Atlanta. He will discuss how to assess our risk for illness.

Incidentally, we invited all of the Senators on this committee to complete a questionnaire provided by Dr. Foege, "The Health Risk Appraisal." I think I was the only one who had the courage to answer the questions, and I am beginning to worry about saying that in public, hoping the results would indicate it would be worth my time and money to run for reelection. I just felt like maybe I could get some free medical advice here today.

I would encourage my colleagues to also complete this appraisal, especially the Democrats so I will be able to anticipate my competition.

Our second speaker is Dr. John Naughton, dean of the School of Medicine at the State University of New York. Dr. Naughton will discuss the importance of exercise in health maintenance and disease prevention.

Our third witness is Dr. Walter Menninger from the world-renowned Menninger Clinic founded by his father, Dr. Walter Menninger, in Topeka, Kans. He will discuss how we can motivate individuals to change their lifestyle as well as the relationship of stress and mental illness.

We are delighted to have you three great physicians with us today. If you will please take the witness chairs, we will proceed with you.

If you could summarize, it would help a lot and allow us some time for questions. I do have the problem that I have to be at the White House at 11. The President has asked me to come down—frankly, late last night—so I do have that problem, and I am anxious to hear everybody here today.

Let me throw out one other thing. As a new chairman of this committee, I am most anxious to have the help of you great professionals. I am not without some experience because early in my legal career I was one of the few then medical malpractice defense lawyers. I used to defend doctors in medical malpractice lawsuits.

Those were the days when that very minor aspect of law, which has grown to a very major aspect of law, was, nevertheless, very important, and those were kind of pioneering days.

I am pleased to tell you that my colleagues and I never lost a lawsuit for the doctors. We did settle some, however. Occasionally, you know, when they take out the wrong kidney or saw off the wrong leg, you have to do something about it, but fortunately that does not happen very often. [Laughter.]

Let us go ahead. Dr. Foege.

STATEMENT OF WILLIAM H. FOEGE, M.D., DIRECTOR, CENTERS FOR DISEASE CONTROL, ATLANTA, GA.

Dr. **Foege**. Thank you, Mr. Chairman.

I will, with your permission, just submit my testimony for the record and summarize it.

The **Chairman**. Thank you. Without objection, the prepared statements will be included in the record after the panel discussion.

Dr. **Foege**. We heard from the last speaker some of the successes of prevention. One other that I would like to mention is in the area of diphtheria, which in 1900 was the third leading cause of years lost in this country. By 1980, there was only a single case in a child in the entire country for the entire year, which I think is a remarkable demonstration of prevention.

Risk appraisal is an important ingredient in planning for better prevention operations. Risk appraisal at the community level has shown the following things:

No. 1, if we look at the causes of death not as a listing of causes of death but a listing of causes of death prematurely—that is, years lost before the age of 65—the top causes of premature mortality turn out to be accidents, cancer, heart disease, homicide, and suicide.

If we look at those causes of premature mortality, it is obvious that human behavior figures heavily in those.

Of special importance in premature mortality are cigarette smoking, alcohol abuse, and violence, both intentional and unintential. Cigarettes alone, as you heard yesterday, lead to 6,000 premature deaths a week in this country.

The **Chairman**. 6,000 premature deaths from cigarettes?

Dr. **Foege**. Yes. Yesterday in testimony you heard that there are over 300,000 premature deaths a year in this country, almost 1,000 a day. This is an extraordinary self-inflicted epidemic.

Alcohol abuse figures prominently in three of the five leading causes of premature death—namely, accidents, homicide, and suicide—with someplace between 20 and 50 percent of those three categories involving alcohol abuse.

Changes are possible. We mention in the testimony that cigarette smoking is decreasing in this country. Two other examples that I would like to mention are as follows:

In the Scandinavian countries, they are taking the lead in reducing the amount of mortality related to alcohol on their highways.

In Finland, a program designed for one country of 180,000 people has shown that in 4½ years they were able to reduce the risk factors of smoking, untreated hypertension, and fat intake and, at the same time, were able to show a decrease in strokes of over 30 percent, a decrease in myocardial infarctions of over 20 percent, and in 4½ years they reduced their death rate from cardiovascular disease by 20 percent.

The counterpart to this community risk assessment, of course, is the individual health risk assessment that you mentioned. With this, a computer program looks at the risks of an individual and returns an estimate of what their mortality risks are in the next 10 years.

In doing this, it mentions what their chronological age is, what their appraised age is, and what their possible age could be—their achievable age.

For instance, it might say: "You are 42 years old, you are living as if you were 46 years old, but if you would do the following things you could have the risks of a 39-year-old."

It is one thing to tell people that they could live 5 additional years, but to tell a 42-year-old they can be 39 again, I think, is a very potent weapon.

The computer also tells the person not only what they could be doing, but it separates out major risks from minor risks, so with each change in lifestyle it tells what this could be worth. It clearly points out the importance of the individual's input in health outcomes.

This approach is now being used in about half of the State health departments, in many medical schools, and in private companies, and we expect it will be a continuing tool in improving what people can do about their own health destiny.

My own hope is that the American characteristics of self-reliance and rugged individualism will make this country a leader in changing behavior toward a healthier, more dynamic lifestyle.

Finally, let me mention that in the United States now, for the first time, we have a national prevention strategy. It consists of four things: No. 1, objectives for the Nation for the year 1990 in 15 different areas. National groups have said that in 10 years we should be able to reach these objectives.

As an example, in infant mortality, we now have an infant mortality of 13. The group said by 1990 we should be able to have that down to nine.

The second part of the national strategy is that the Surgeon General has put out for the first time a book on prevention listing strategies in order to reach these objectives. In 15 areas now we have priority programs listed.

A third component is standards for prevention programs so that a local health department or State health department has a way of measuring whether their program is, in fact, going to meet the objectives.

The fourth part of this national strategy is a coalition of national, State, and local health departments, schools of public health, and medical schools, aiming toward national objectives. What is now needed is an increased emphasis on implementing this strategy.

While implementation of the prevention strategy will obviously lead to economic improvements, we have to remember that the real reason for promoting prevention is still to improve the quality of life.

Thank you, Mr. Chairman.

[The prepared statement of Dr. Foege follows:]

DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service
Centers for Disease Control
Atlanta, Georgia 30333

STATEMENT BY

WILLIAM H. FOEGE, M.D.

DIRECTOR

CENTERS FOR DISEASE CONTROL

on

PREVENTION AND HEALTH RISK APPRAISAL

Before the

COMMITTEE ON LABOR AND HUMAN RESOURCES

U. S. SENATE

July 17, 1981

Mr. Chairman and Members of the Committee:

I am very pleased to have this opportunity to testify before you. I feel that this Committee and the Commission for Responsible Health Policy are performing an important public service by focusing attention on Preventive Medicine and Health Promotion and Prevention through your co-sponsorship of this Hearing today.

As you requested, I shall briefly discuss approaches to health appraisal. One of the strategies in accomplishing the mission of CDC is identifying preventable health problems.

Several years ago I asked a group of distinguished leaders in preventive medicine and public health to provide a national appraisal of health. I asked specifically that they identify the most important prevention steps that could be taken in this country to reduce unnecessary illness and premature mortality and to improve the quality of life. Their findings together with subsequent studies have shown first, that the leading causes of years lost before age 65 in the United States are:

1) Accidents (Motor vehicle and other)
2) Cancer
3) Heart disease
4) Homicide
5) Suicide

This list is somewhat different from the usual cause of death list because it concentrates on premature mortality.

Second, it became obvious that the generic causes of this premature mortality and unnecessary morbidity were heavily influenced by human behavior and that a reduction of the causative risks will require approaches that provide individuals, families and communities with ways of making informed choices.

Third, the most important specific behaviors involve such factors as cigarette smoking, alcohol abuse and untreated hypertension as well as intentional and unintentional violence.

Accidents are the leading cause of premature mortality. Motor vehicle fatalities are a major cause, but an almost equal number of deaths result from other accidents, principally falls, burns and drownings. Between one fifth and one half of those deaths involve alcohol abuse. Alcohol abuse is also a significant factor in homicides and suicides.

If the excess cancer deaths from cigarette smoking are added to the premature cardiovascular deaths due to smoking, over 320,000 premature deaths per year result from cigarette smoking. This means that almost 1,000 premature deaths per day result from cigarette smoking. This is an unusually devastating epidemic which should be within our power to modify. Accidents, cigarettes and alcohol constitute three of the most powerful hazards in our environment; all could yield to some degree to prevention. We now have in all three areas, plus other areas, targets in reducing these problems which we would like to reach by 1990. Informed lifestyle changes are clearly essential to the achievement of these long-range objectives.

Changing lifestyles is easier said than done, both for individuals and for the Nation. Yet there is accumulating evidence that it can be done. There are more than 30 million adult ex-smokers in the population. Many millions more have brought their high blood pressure under control. These two changes in behavior alone undoubtedly account for much of the most dramatic success story of the past few years in the Nation's health—the steady reduction of deaths from heart attacks by about 2 percent per year over the past 12 years.

At the community level, health appraisal is one of the classic instruments of public health. Continuing to conduct surveillance will be a key activity in working toward and measuring our success in reaching the 1990 objectives. The process of community appraisal, surveillance and action has eradicated smallpox from the world. It has brought us to the threshold of interrupting transmission of measles in the United States. Now we are adding surveillance on the prevalence of risk factors such as cigarette smoking; and the incidence of diseases that accompany these risk factors.

Translated to the individual level and applied to health-related lifestyle choices, health appraisal seeks to accomplish a parallel purpose: to provide the individual with the information necessary so that he or she can take preventive measures. As with community programs, individual programs for health improvement need to sort out major from minor risks, risks which are controllable from those which are not. They also need to include possible means of dealing with those risks which are identified as significant and controllable.

The Individual Health Risk Appraisal (HRA) is an exciting and comparatively new instrument for helping a person sort out his risks and the year of life lost if he continues certain actions. Used as a part of a well-planned educational program, it can also point the way to resources that will help him accomplish the changes he decides to make. It enables the individual to hold a mirror up to his own lifestyle, to learn the truth and consequences of what he is doing to and for his own health.

The Health Risk Appraisal instrument we are currently using at CDC, which members of the staff of this Committee have had an opportunity to try out in the last couple of weeks, is based on a model widely used in Canada by the Ministry of Health and Welfare, modified to conform to United States health statistics. It asks a few simple questions on family and personal medical history and a number of questions on specific health behaviors. It includes blood pressure and cholesterol levels when these are known by the respondent.

When processed through a computer, it gives back to the individual three specific "ages": his chronological age, his appraised age, and his achievable age. These "ages" are based on longevity—chances of surviving the next decade, as compared with others of the same chronological age and sex. Thus a person who is actually 40 years old may have an appraised age of 47—his survival chances are those of a considerably older person. But he may have an achievable age of 38—provided he makes some changes in his lifestyle.

The second part of the computer product spells out what those changes are for that specific individual, and how much benefit he may expect from each change that he actually accomplishes. It ranks his risks, indicates where he can get the most for his investment in the hard work of changing behaviors.

Where the Health Risk Appraisal has been used effectively, there is an essential next step not provided by the instrument itself. Through group or individual counseling and a prior assessment of community resources available to help carry out good intentions, specific courses of action are suggested.

How effective is it? We don't yet know for sure, although there are encouraging indications that with some groups, at least, it generates interest in lifestyle change. At CDC, where we have now used the program twice with our own employees, it has triggered a very heartening demand for smoking cessation, weight reduction and exercise programs and very high levels of participation in such programs that were conveniently accessible.

Others around the country, in public agencies and in private industry, are having similar results. More than half the State health departments have used HRA as part of their health education-risk reduction programs supported by our grants, including Dr. Mason in Utah whose program has been a leader in health promotion and from whom you heard yesterday. Many medical schools are using it in their preventive medicine programs. Several private companies are successfully marketing HRA instruments commercially.

How scientifically valid is it? Obviously we are dealing with statistical probabilities; HRA is not and could not be a predictor of any given individual's fate. But it does personalize those probabilities, and one retrospective study we carried out with the 7,000 persons included in Dr. Breslow's study of Alameda County, California, indicates that its predictive capability is surprisingly good.

Currently, our Center for Health Promotion and Education at CDC is carrying out three parallel efforts related to HRA. We are assisting a variety of agencies to try out HRA, at their specific request, by making available to them the computer software on which our version of the instrument is based. We are seeking to strengthen the scientific basis for the risk factors and their respective weighting through a major contract, intended first to develop an improved method for assessing risk factors and then to apply this method to cardiovascular risks and trauma risks. Finally we are trying to improve its educational effectiveness with a variety of population groups including Hispanic-Americans, urban blacks, and young people.

HRA is not a new magic. It does offer one promising approach to answering the question: "How Do You Know When You Are at Risk?"

More than that, it illustrates in microcosm a number of the broader issues that face us if health promotion is to take its rightful place and if, indeed, individuals are to be equipped to ordain their own health destiny.

First, as I have indicated, it illustrates the need for new knowledge: biomedical knowledge to refine our ranking of risks; epidemiologic knowledge to identify populations at highest risk of specific hazards; behavioral knowledge to enhance the individual's likelihood of success in making desirable changes. It also highlights ethical frontiers as we examine the appropriate roles of government, of schools, of employers, of media and others in encouraging the modification of behavior for healthful ends.

Second, it illustrates the need for new partnerships to promote health: partnerships between the Federal Government, State and local governments, and the private sector, for none can do the job alone; partnerships between health, education and communications establishments; partnerships between the individual, who has the ultimate right of choice, and the social institutions which can help him make it wisely.

Third, it illustrates the need to use what we know, and document what we do. We already know how to do more than we are doing. To wait until the last scientific t's are crossed would be to waste a generation that could be healthier. This is a field where the urgent need for research is matched by the urgent need to apply and measure the outcomes of what we know.

I'm encouraged, however, not only by the successes already apparent in modifying lifestyle but also by the conviction that our efforts fit very nicely into an American approach. That is rugged individualism, the belief that individual action can influence one's destiny, a sense of self reliance. If we can effectively educate people on the most important steps to exercise that self reliance, the next decades can be among the most dramatic in this century in reducing unnecessary morbidity and mortality.

Finally, Mr. Chairman, I would like to stress my personal conviction that the benefits of health promotion cannot be measured by health care cost reduction alone. Long-term reductions in demand and health care costs will be influenced by successful health promotion programs, but the major reason for prevention is that it improves the length and quality of life and the productivity of Americans.

The true measure of success is healthier people, men and women who not only live longer but also live more years productively, with the increased sense of well-being and self-worth that self-achieved good health can provide.

That concludes my testimony. I shall be pleased to respond to questions which you may have.

The CHAIRMAN. Thank you very much.
Dr. Naughton.

STATEMENT OF DR. JOHN NAUGHTON, DEAN, SCHOOL OF MEDICINE, STATE UNIVERSITY OF NEW YORK

Dr. NAUGHTON. Thank you, Mr. Chairman.

I, too, will summarize my remarks. I have given my statement to the staff of the committee. My remarks are limited to one aspect of prevention—namely, physical activity and health. I believe there are two aspects of good and bad news here.

We would like to ask if physical activity is something that should be promoted, and I believe the answer is in the affirmative.

The other question commonly asked is: Is there proof that physical activity will, in and of itself, reduce disease or mortality? There is certainly suggestive evidence, but the conclusion is unproven at the present point in time.

However, I believe that if one reviews the vast amount of epidemiological studies that have been reported since 1939 the general conclusions are that people who are engaged in occupationally active work invariably have lower death rates from heart attack than subjects who are engaged in sedentary work. With the exception of one study in Los Angeles of civil servants, this conclusion has generally been the case.

Even though heart attacks have been lower, other manifestations of coronary heart disease have been higher, indicating that if exercise works then it is something on the prevention of a particular part of disease and not on preventing the underlying arteriosclerosis or hardening of the arteries.

Until recently, there was great skepticism about whether lack of exercise was a risk factor in coronary disease. In July 1979, the Framingham group reported in the Archives of Internal Medicine their findings on reviewing the relationship of activity to heart disease and have concluded for the first time that inactivity, in and of itself, is a risk across all ages, particularly for men for both total coronary mortality and for cardiovascular diseases in general.

Even though it was a weaker risk factor than smoking or elevated blood pressure or elevated cholesterol, it was a definitive risk factor. The Framingham investigators, particularly Dr. Kannel, were moved to emphasize that they are satisfied that their findings encourage a need for engineering chronic, ongoing, lifelong physical activities in the population, particularly in a population that is becoming more and more sedentary with each passing year and each passing decade.

This is probably the most encouraging—from the epidemiological standpoint—statement on encouraging exercise in this population and is a positive statement in this area.

The second area that I think is important to stress is that, of all studies done of sedentary and physically active people, comparing them healthwise, comparing them functionwise, in terms of physiological performance, and so on and so forth, invariably the active people are always different than the sedentary people with lower blood pressure at rest, lower heart rates at rest, ability to tolerate low levels of effort with less cost to the cardiovascular system. Therefore, they are more efficient and tend to have greater work capacities. They are able to adjust to external stress in a much more reasonable and healthy manner.

These differences occur regardless of whether you compare a lifelong active population with a lifelong sedentary population or take a sedentary population and make them active. In other words, the sedentary American—and this seems to be true across all ages—has the capacity to be reconditioned and to be made more like an active, healthy person who has been active lifelong, almost like making them from 42 to 39, you might say.

Even sicker people are able to be reconditioned, and therefore the activity tends to promote changes regardless of the presence or absence of disease, and therefore has been thought to be beneficial.

The best contribution in this area is Dr. Paffenbarger's work on longshoremen and graduates of Harvard and the University of Pennsylvania. It indicates that individuals participating in a high level of activity have a 50-percent lower mortality experience and heart attack experience than subjects who are not engaged in high-level activity.

In Paffenbarger's work, what is high-level approximates 2,000 calories per week of expenditure above rest or routine activity. That translates itself into about 20 miles of effort or about 3 miles of effort per day in the form of walking, running, or in alternate sports activities.

Even though the case is not proved for reducing overall mortality, there have been three control studies of heart disease patients. Each study has been inadequate in terms of total numbers and duration of study, but each indicates a reduction in mortality of about 30 percent in the active patients as compared to the inactive. Again, this is evidence suggesting that activity might be good.

The question of whether activity affects other parameters of life has also been addressed. There has been a lot of interest in the behavioral area. There are suggestions that the sense of well-being, security, and ego strength is improved in active versus sedentary people even though it may not be a true psychodynamic change that is being effected.

All in all, the evidence seems to suggest that activity is something that should be promoted. The question for your committee is: Is there a way of doing it in a reasonable manner which would cut costs and allow the society to hopefully reduce the need for hospitalization and other care?

I would suggest that many of the forces are already in the society. Many communities now have manpower or physicians who have been trained in exercise physiology and the application of physical exercise programs. Exercise physiologists have been trained in the Nation's university facilities such as public school gymnasiums, YMCA's, Jewish community centers, and voluntary agencies which are supporting programs, the American Heart Association, the local heart associations, and so on and so forth, all of which can be mobilized to work in a coordinated and consolidated way to deliver the product.

The problem is that many communities' facilities are not made available, and an emphasis to make them available should be brought about.

In many communities, the facilities are not close to work or home. This is an issue that has to be addressed. How do you make them available in a reasonable and noncomplicated way, and how do you mobilize communities to build in other adjuncts which would motivate and facilitate exercise such as bikepaths, parks which allow people to exercise comfortably, and so on and so forth?

In terms of public participation, I would say that the need to use Federal funding and/or State funding to promote research and education will still be there. Research of physical activity is expensive and complicated, and in my experience the private sector will only support it on the applied side; it will not support basic research in this area.

In terms of sharing in cooperation, one has to think about what the public sector would have to do versus the private sector.

All in all, I would say that the time for looking at this area of prevention is ripe. I would encourage the committee to look at it very seriously.

Thank you.

[The prepared statement of Dr. Naughton follows:]

STATEMENT OF DR. JOHN NAUGHTON

RELATIONSHIP OF PHYSICAL ACTIVITY AND GOOD HEALTH

To (1) Members of the United States Senate Committee on Labor and
Human Resources; and
(2) The Commission for Responsible Health Policy

It is a pleasure to be invited to present some selected views on the relationship of physical activity to good health. As each of you are well aware the American public, over the course of a generation, has developed a health consciousness and in response to public education, vast segments of the population have endeavored to alter their lifestyles. Included among these changes has been the introduction and acceptance of regular physical activity as an avocation designed to enhance physical and emotional health and hopefully to modify or reduce the incidence of clinically manifest coronary heart disease. Concommitant with the introduction of regular physical activity, many other changes occurred as well. Included among these changes were improved high blood pressure detection and care, emphasis on reduction of saturated fats in the diet, and anti-smoking campaigns.

These efforts have apparently been productive and rewarding because over a period of the last fifteen years the incidence of new episodes of heart disease have decreased by 18 percent, with the greatest changes observed in the target groups most desirable, namely middle-aged men. Whether the reduction is due to a single or to multiple changes remains to be established. Nevertheless, the fact that a reduction has occurred offers the basis for strong justified optimism that chronic debilitating diseases such as coronary heart disease can be modified and possibly prevented, particularly in early life.

The Effects of Physical Activity

Epidemiologists and cardiologists have been interested in the relationship of physical activity to the occurrence of heart disease at least since 1939. Studies performed at that time and since have indicated rather consistently that occupationally active individuals have a statistically significantly lower occurrence of myocardial infarctions (heart attacks) than do subjects engaged in sedentary occupations. Although the observations have held up from one study to the next with the noticable exception of Dr. Chapman's study of Los Angeles Civil servants, the studies have not found a reduction in other manifestations of coronary heart disease. The findings therefore suggest that while regular occupational physical activity influences the rate of heart attack, it may not influence the basic underlying disease process, coronary atherosclerosis.

Until recently, the above epidemiological approach to the problem was accepted with curiosity and the observations were considered stimulating, but physical inactivity or a sedentary life style was not accepted, in and of itself, an important coronary risk factor. Today, even this situation has changed. Dr. William Kannel and Mr. Paul Saulie reported in the Archives of Internal Medicine in August, 1979 their findings on the Framingham, Massachuetts population. Their data indicate that physical inactivity is a risk factor for the development of coronary heart disease in men across all ages. Still, its relative risk did not approach that of the other established coronary risk factors, i.e., age, level of systolic blood pressure, number of cigarettes smoked and serum cholesterol levels. From their findings the authors stated:

> "While the data fall short of either proving or disproving that an increased level of habitual physical exercise is beneficial, with the number of sedentary persons in the general population growing with each passing decade, the need to regain more vigorous exercise habits seems urgent for general well-being. It seems time to begin engineering physical activity into daily living to counteract the sloth provided by modern technology."

Field trials on the actual effects of physical activity on disease rates are difficult and expensive to perform. The best available data to date has been reported by Dr. Ralph Paffenbarger. He has studied the effects of lifelong physical activity in longshoremen and in alumni from Harvard and The University of Pennsylvania. In each cohort he observed and reported significantly lower overall coronary heart disease death rates and rates of sudden death in the groups classified as performing high levels of physical activity. The differences in rates from overall coronary death and sudden death were not significantly different between subjects classified as performing medium or light levels of physical activity. Paffenbarger's studies indicate that the protective effect of physical activity for longershoremen was observed in those men working at rates in excess of 8.5 kilocalorie per minute and for the college graduates for those who consumed in excess of 2000 kilocalorie per week above the routine level of activity. The latter provides some basis for developing a physical activity prescription for the general population. For example, if one accepts the principle that a mile of physical activity requires about 100 kilocalorie of energy expenditure then it would follow that a program of at least 20 miles of effort or its equivalent should be recommended for the general public. This translates into three miles of additional effort per day. For the conditioned jogger, this will require from 30-to-45 minutes per day, and for the less conditioned person a longer period of activity per day.

The physiological effects of physical activity are well established. It is apparent that regardless of a person's age, and to some degree, regardless of health status, physical activity can be effective in bringing about these changes. Principal among physical activity's demonstrated beneficial effects are: (1) reduction in heart rate at rest and during submaximal effort; (2) reduction of systolic blood pressure at submaximal effort; (3) a reduction in the oxygen requirements of the heart muscle at rest and submaximal effort; and (4) an enhancement of physical working capacity or the person's level of physical fitness. The available studies indicate that with a well regulated exercise program these changes can occur within a period of six to twelve weeks and can be maintained thereafter as long as the person remains regularly physically active. The change in work capacity that can be effected in previously sedentary men between the ages of 30 and 55 ranges from 30 to 35 percent, or from an initial level of 33 ml O_2/Kg•min. to one of 45 ml O_2/Kg•min. At the lower level one can negotiate a mile's distance comfortably in approximately 15 minutes; at the higher level, in from 8-1/2 to 9-1/2 minutes.

Other physiological changes have been attributed to physical activity. Among them are (1) reduction in body weight; (2) increase in lean body mass; (3) reduction of plasma cholesterol levels; (4) increase in high density lipoprotein cholesterol (HDL-C); (5) and changes in insulin and glucose tolerance. The influence of physical activity on body weight is usually observed only if calaric intake is modified and/or the activity program is a very intense, vigorous, sustained program. Most subjects who participate in programs limited to 200 to 300 Kcal expenditure three to six times per week do not lose a great deal of body weight. They do experience a reduction in body fat and the increase in lean body mass. The serum cholesterol changes observed usually occur in relationship to weight reduction not to physical activity per se. The effects on HDL-C are still unproven. The effects of physical exercise on glucose and insulin tolerance are well established. In fact, for children and adolescents with diabeties mellitus, regularly performed physical activity has aided in insulin regulation.

Regularly performed physical exercise has been credited with exerting potentially beneficial effects on psychological, behavorial and emotional characteristics. The specific psychodynamic effects are still uncertain. Although most observers are impressed that the level of depression and of anxiety are reduced it appears that the psychological impacts of physical activity are shared by individuals without increased levels of depression or anxiety as well. What is clear, however, is that physically active people have an enhanced state of well being and self-confidence. These features are translated into a sense of feeling well, being productive on the job and at home, and of ego security. These features conceivabaly do not have a psychodynamic basis, but rather are a result of the enhanced physiological and physical statuses, which accompany regular physical exercise. Nevertheless, the findings appear real and although not yet quantifiable, their development has been reported by program directors, participants and spouses.

Since primary intervention studies are impractical to pursue, epidemiologists and cardiologists have sought to determine the effects of physical activity by observing subjects at high risk for death, namely patients with known heart disease. Should physical activity intervention be successful in such high risk subjects, it would follow that its preventive value would be established. At least three randomized control tests have been performed, one each in Finland, Sweden and the United States. (A slightly different trial was conducted in Ontario.) Unfortunately, each trial suffered from a small patient sample and a short duration of study. Nevertheless, the results are encouraging in that observed mortality rates were from 29 to 37 percent lower in the physically active patients than in the control subjects. The findings, while inconclusive, do not detract from the hypothesis that regular physical activity may be beneficial in the maintenance of cardivascular health.

In summary, physically active persons of all ages differ physically, physiologically and behaviorally from their sedentary colleagues. The observed differences are assumed desirable attainments which are usually associated with a healthy lifestyle and better life outcome. Although the case for longevity remains unproven, developing evidence suggests that physical activity may aid in reducing poor health in the productive middle-aged years even if it does not do so in older Americans. The constellation of observations serves to justify the recommendation of a physically active lifestyle for presumably healthy Americans of all ages, especially for males who are gainfully employed in essentially sedentary occupations.

UNMET NEEDS

Research - The scientific enthusiasm for studying physical activity has been related in large part to the lack of sophisticated technology required for ascertaining the effects of physical activity on cardiovascular, metabolic, biophysical and muscularskeletal functions. The basic and applied investigations performed to date have established many of the effects which can be associated to physical activity.. There appears to be general agreement on the peripheral adaptation to physical activity. Unresolved is whether physical activity exerts any demonstrable direct effects on the heart muscle, its circulation, or its neurohumoral control mechanisms.

There is clearly a need to expand the research support for studies of physical activity. This should be done, however, only as additional technological advances make such studies practical. Such research endeavors will require animal as well as human experimentation.

There will continue to be intense interest in the conduct of large scale prevention and/or secondary intervention trials. While desireable, it does not appear prudent to pursue this pathway at the present time. Such trials are complex, expensive and fraught with tremendously difficult logistic problems. It appears that for the time being the scientific community and the American public must be satisfied with their state of ignorance on the effects of physical activity on disease prevention or disease treatment.

Education - Great strides have been made by the nation's medical schools, health education schools, and in many of the allied health schools. Exercise physiology and the concepts of its basic application to exercise testing and to exercise training are now an engrafted part of the curriculum of every medical school and of every cardiovascular training program. (There was virtually none available in 1960. At that time only five medical schools owned a motor driven treadmill, and in most instances they were not used for human investigation.)

A large number of exercise physiologists have been trained, and many of these individuals now work with physicians in hospitals, clinics, and community programs. Others work in uiversities, community facilities such as YMCA's, and independently.

In the allied health fields many physical therapists and occupational therapists have been trained in the basics of exercise physiology and cardiac rehabilitation.

Despite the advances that have been made in the educational areas there is still a need to impact other areas of the society. For example,

(1) If physical activity is a desireable lifelong behavioral trait, then it is important that a positive attitude be fostered in each citizen's developmental years by the family and by the school system. There are still too many families that fail to encourage all forms of physical activity in their children, and there are too many school systems in which parents, teachers and

students do not appreciate the need to learn the multitude of skills which physical activity requires. In an age of budgetary constraints school systems usually reduce or eliminate physical activity programs. It is important that the priorities of America's educational systems be re-evaluated to make sure that an important lifelong function is not neglected.

(2) There is still a need for proper adult education about the benefits, risks and hazards of physical activity. Included is need for adults to learn and to understand how to perform physical activity and under what circumstances.

(3) Since physical activity should be accomplished at a minimal cost in terms of dollars and time, alternate manpower support to supplement and compliment available professional manpower sources should be trained and developed. These individuals, mostly volunteers, could help supervise and conduct exercise testing and physical fitness programs.

(4) The public should be educated not only about physical activity but about multiple lifestyle changes which benefit their overall health status.

Service - The greatest unmet need is in the area of service. This need arises from a seeming lack of facilities in which to conduct and promulgate ongoing programs. It is apparent that if physical activity is to be employed in the population at large that accessibility and convenience are factors which must be optimized. This implies the availability of facilities in close proximity to work or to home. Obviously, in most American communities such facilities are probably readily available. For example, in most cities and suburban centers of the United States there now exist underutilized or closed public and private facilities which could be ideally used for physical activity programs. Included in this list are schools, factories and office buildings which are either underutilized or abandoned. The creation of multiple satellite sites within urban-suburban areas would alleviate the excuse not to exercise.

America's urban and suburban areas seem to be struggling with the issues of accomodating to the needs of physical activity while still promoting faster transportation systems. The result is that only a few communities have made a commitment to facilitate physical activity. Such a commitment will require the building of sidewalks, bike paths, physical activity sites, etc.

The problem of available service facilities is particularly urgent for America's aging population. It is important to emphasize that for our citizens age 60 and older that physical activity is not only a determent to immobilization and premature invalidism, but it is extremely important to the maintenance of a nutritionally balanced diet. Thus a large commitment to a vast array of alternate activity programs for the aging population must be a major priority for both the public and private sectors.

RELATIONSHIP BETWEEN PUBLIC AND PRIVATE SECTORS

There is perhaps no area of endeavor where the participation of the public and the private sectors in a complementary manner can be demonstrated. To this observer it is apparent that a great deal of the emphasis on physical activity as an important aspect of health maintenance and disease prevention emanated from the private sector and from neither the public nor the scientific sector. In fact, many of the scientific studies which have been performed were in reaction to just such advances. Thus it should be apparent to the Committee members that these relationships, while informal, are existing and that the climate to facilitate further developments is quite good.

It would seem reasonable to recommend a balance in which the public sector provided the necessary continuing support for appropriate basic and applied research efforts and the private sector developed and conducted the actual programs. This approach implies that the public sector would underwrite few of the costs for subject participation. This would and should be an individual and community responsibility. However, advances in the basic and applied areas of physical activity and appropriate training of manpower can be assured only if support from the public sector to the research and educational mission is assured.

It is quite conceivable that the proposed block grant approach to Federal Funding could be used to facilitate this form of preventive health care throughout the United States. The grantee would be expected as part of the award to develop a program which included private sector cooperation and participation. Since such cooperation has been obtained in the past it is conceivable that it should be productive in the future.

It is also conceivable that third party health insurance carriers could benefit enormously from such preventive health care programs. It would be in their best interest to join with the public sector in offering appropriate incentives to their corporate and individual consumers as a mechanism of reducing health care costs.

APPROPRIATE USES OF VOLUNTARY HEALTH AGENCIES, RELIGIOUS ORGANIZATIONS, AND ACADEMIC INSTITUTIONS

The promotion of physical activity has already received the support of the above types of institutions and agencies. The nation's universities have conducted important research, developed necessary manpower, and implemented research and demonstration models which have been replicated throughtout the country and the world. The American Heart Association and other agencies such as Blue Cross/Blue Shield and the American Lung Association have promoted the judicious use of physical activity both in prevention and in treatment. These activities should be continued, refined and expanded. Religious institutions, especially those involved in care of the elderly and operation of nursing homes should be incorporated into any viable community or regional programs designed to promote regular physical activity for the promotion of health care.

CAN REGULAR PHYSICAL ACTIVITY REDUCE HEALTH CARE COSTS?

This question can only be answered inferentially. It seems appropriate to suggest that while participation in physical activity programs carries with it a definitive cost, the benefits in quality of life and productivity justify the investment. While the issue of direct health care costs can only be determined by appropriate study, it seems reasonable at the present time to surmise that overall health care costs particularly for the middle-aged population could be reduced.

POSSIBLE AREAS OF ACTION

Short term - The United States already has a network of manpower, agencies and programs in place for the conduct of regular physical activity programs. In some communities the networks are working well. It would seem that the most appropriate short-term course of action would be the stimulation of these groups to enhance and refine their coordination and implimentation of such programs.

In some communities these goals can be reached through the promotion of cooperation among the University, health community, local heart association, and agencies such as YMCA's, Jewish Community Center, and public and private school systems. In this coordination each community should be encouraged to establish its priorities and work too or in relationship to the perceived needs for research, education and service.

Near term - Although physical activity should be encouraged for the general population at the present time, there is still a need to answer many questions, to deal with the logistical considerations, and to establish a reasonable cost effectiveness approach to its application.

Questions which require solution include the best forms of physical activity and exercise to recommend to men and women of differing physical fitness and health statuses, the prescription of exercise, the role of exercise testing in a healthy population, and the preferred modes of encouraging and facilitating physical activity. There is a need to evaluate the most cost effective ways of implimenting physical activity programs and to determine the preferred types of facilities and activities that Americans should engage in.

There is an urgent need to determine the minimal costs that individuals should invest for clothing, equipment and conduct of activity programs.

Long term - Ideally in the long term goals are to encourage and achieve a physically active population for subjects of all ages and sexes. The most important long term goal is to establish definitively the link between physical activity and health status.

The CHAIRMAN. Thank you, Doctor.

Dr. Menninger, we will now turn to you.

STATEMENT OF W. WALTER MENNINGER, M.D., MENNINGER CLINIC, TOPEKA, KANS.

Dr. MENNINGER. Thank you, Mr. Chairman.

In line with the time, I likewise will summarize. Copies of my work are available.

In looking at how you motivate people for responsible health care, one of the first things is to look at what motivates people generally, and I would emphasize the degree to which we are all down deep motivated by the pursuit of pleasure and the avoidance of pain.

As a general rule, we do what is easiest for us to do, and we change only if we have a clear appreciation that that change is going to benefit us and make us feel better either absolutely or relatively.

One can see the operation of the pleasure principle not only in young children but in the operations of technology and private enterprise, which largely are devoted to those causes that make life easier for us, whether it is entertainment at the flick of a switch, or the fast food restaurant that lets us get it just like that and we do not have to waste any time, or everybody wanting their own car and getting distressed if there is something that gets in the way of our being able to use the car.

In addition, there is a very powerful force within people as they grow to wish to control their own life—to be able to have the autonomy and the freedom to do whatever they want to do. It is consistent with the pleasure principle.

The challenge then is to see how you can help people appreciate that responsible health care has a payoff in greater pleasure, less pain, greater freedom, and greater control of one's life.

I was not aware that Mr. Stanton was going to be testifying a little bit later, but I was struck on CBS television last Sunday by a feature on Joe Namath's starring at the Jones Beach summer theater in "Damn Yankees."

When he was asked: "What makes you happy these days?" his response was: "Staying healthy. If you are healthy, you can do anything. Staying healthy—that's first."

Well, Joe spoke right to my remarks. The challenge is: Why is not everybody imbued with the same view that Joe Namath is?

The CHAIRMAN. Not everybody is as healthy. [Laughter.]

And I think he might have some other challenges as well, from what I understand.

Dr. MENNINGER. The fact is that many times responsible health care is not practiced because it is too much effort. It gets in the way. It either requires some discomfort or some displeasure. It takes discipline. It takes the capacity to appreciate that you are going to get future benefit.

To give up pleasure, whether it is the tension-relieving cigarette or the extra highball, is something that a lot of people are reluctant to do.

Physicians have long realized that patient compliance is often haphazard and generally is a function of how much pain the patient feels: As long as you hurt, you take the medicine or do what the doctor says, and when you stop hurting, you do not need it any more even though you may actually need it.

In addition, another element that gets in the way is the complex factors within one's personality, whether it is a low self-esteem—feeling you are not worth it—feeling guilty and you are undeserving, or other kinds of self-destructive impulses including a proneness for accidents. All of these psychological factors will interfere with the best intentions to responsible health care.

My uncle, Dr. Carl, put it very well in his book, "Man Against Himself," which was devoted to the whole subject of our self-destructive tendency. He put it this way: "One would expect that in the face of the overwhelming blows at the hands of fate or nature that man would oppose himself steadfastly to death and destruction in a universal brotherhood of beleaguered humanity." But such is not the case.

Whoever studies the behavior of human beings cannot escape the conclusion that we must reckon with an enemy within the lines. It becomes increasingly evident that some of the destruction which curses the Earth is self-destruction—the extraordinary propensity of the human being to join hands with external forces in an attack upon his own existence.

So what do we do? Assuming that most people feel at some level the same way as Joe Namath and want to maintain good health, what do you have to do to get them to maintain responsible health care?

Part of this is respecting the pleasure principle and helping them understand that what they can do in terms of responsible health care will have its payoffs.

One of the values of the risk appraisal which is available in model form from the Center for Disease Control is the fact that it gives people some concrete evidence of what you can do that should improve yourself.

In the National Health and Safety Committee of the Boy Scouts, we had the whole committee take it. Our committee was not as reluctant as your committee may have been, but we also have some pretty healthy types involved with that operation.

The **Chairman**. We have some healthy types on this committee, too, they tell me—not many, by the way.

Dr. **Menninger**. We hope to expand this because, increasingly, we are seeing more and more fatalities in the Boy Scout movement, not from the boys but from the adult leaders who do not have the fitness that they ought to have.

As Dr. Foege pointed out, what people can do about their own health destiny is one aspect that can make a difference, and that is one element of health education that ought to begin early in life, in the home and in schools, and be consistently carried out.

Health education is something that doctors do not do as much as they ought to, and I am not sure that medical schools emphasize it in their education.

One book, which I will leave with your staff, which you may be interested in, was a book that came out of a survey of youth and was published for the Connecticut Department of Health: "Teach Us What We Want to Know." This was a survey of what children at different levels had as their greatest health concerns and interests, and could point to some directions in health education programs.

The practical impact of health education is provided by various studies of health practitioners. I became aware of one recently at the University of Kansas Medical Center where they were studying the impact of exercise in recovery from cardiovascular disease—either heart attack or bypass surgery.

The experimental group had a staff member working with them who, at the same time, gave them a lot of education about the physiology of the heart, the impact of the medicine, and a whole range of information that could help people be in more control of what they were doing.

Needless to say, the compliance was much greater in the experimental group for proper and responsible self-care than it was in the control group that did not have that extra education and knowledge.

Health education is important for emotional as well as physical well-being. We tend often to focus on physical health. The physical problems are more concrete to focus on, whether it is the heart disease or the high blood pressure, but, of course, you cannot separate the psyche from the soma, and there is a very subtle interrelationship between the mind and the body.

Just as some of the greatest resistance to responsible health care comes from complex, subconscious, psychological conflicts within people so that they undo themselves, so in the same way effective programs must encourage responsible health care and take into account mental health principles.

One experience we had when I worked with the Peace Corps a number of years ago was the degree to which we could identify predictable periods of emotional crisis in Peace Corps volunteers. We knew that, anywhere from 4 to 6 months after they were out in the field, they were likely to get discouraged and have low morale, and stop boiling the water, or stop being as careful about what they were eating, and get physically ill as well as down in the dumps, and that there were things that we could do to both help them be alert to the likelihood of that critical period and also help them overcome it.

Obviously, programs that are going to help motivate people to achieve responsible health care must respect the needs of people under stress, they must acknowledge the role of stress in illness, and this is increasingly evident.

I attached with my remarks a short paper I presented a number of years ago on one aspect of it. Also soon to be published will be a very detailed report prepared by the Institute of Medicine of the National Academy of Sciences on the relationships of stress and disease.

Clearly, we need to address factors that will be as important in preventing emotional stress as physical stress. These programs will need to instill in people the sense that they can influence what happens to them, that there is hope that things will be better in the future, and to help find programs that will increase their sense of worth and self-esteem. If you do not think much of yourself, you are not going to take good care of yourself. We see this again and again, and that is why it is important to keep the mental health aspect as much in line as the physical health.

[The prepared statement of Dr. Menninger follows:]

"Stimulating Motivation for Responsible Self-Care"

Remarks by W. Walter Menninger, M.D.
Senior Staff Psychiatrist, Menninger Foundation, Topeka, KS
Chairman, National Health & Safety Committee, Boy Scouts of America

for Public Hearings on Preventive Health
Committee on Labor and Human Resources
United States Senate, Washington, D.C.
17 July 1981

This morning, I've been asked to consider with you how to motivate people to be responsible about their health care. Obviously, a great many people take their health for granted and do not take proper care of themselves. Responsible health care requires a certain level of maturity, a capacity to look ahead, to discipline oneself and deny present pleasure for future benefit.

Pleasure is a key point, for the so-called pleasure principle is one of the basic motivating forces behind all human behavior, i.e. the wish to seek a pleasurable state, either actual or relative, and to avoid pain. The operation of this principle is obvious in the small child who wants what he wants when he wants it, right now! It is no less evident in the larger scheme of life, as reflected in the thrust of technology and free enterprise. Consistently, energies are devoted to making life easier, whether in transportation where the ultimate desire is to have your own vehicle which lets you go where you want when you want; or in the evolution of food merchandising and processing from the old neighborhood grocery to the large supermarket where you make your own selection, and from raw meats and vegetables to the frozen dinners to the fast food at Burger King and McDonalds; or in the powerful attraction of television with its entertainment at the flick of a switch.

Two other motivating forces of consequence are (1) a wish to be in control of one's life, to achieve the greatest freedom and autonomy possible within the social system, and (2) a retaliatory impulse when one's efforts for pleasure or autonomy are frustrated. This impulse is exemplified in the lex talionis, the law of the talion, an eye for an eye. Essentially, it operates in response to a hurt; when you are hurt, you want others to hurt like you hurt.

If asked, most people would state that they want to live as long as possible and they want to remain healthy. Just this past Sunday, the CBS-Television "Sports Sunday" program featured a segment on Joe Namath, who is starring this summer in the "Damn Yankees" musical production at the Jones Beach (NY) Theater. In the interview of Namath, he was asked, "What makes you happy these days?" His response: "Staying healthy. If you're healthy, you can do anything. Staying healthy, that's first."

So why is it a problem to motivate people to take good care of themselves? Why aren't they all imbued with Namath's priority on staying healthy?

First, because often there is no immediate payoff in feeling better because of responsible self-care. Indeed, such care, whether it's regular brushing and flossing of one's teeth, or adhering to a balanced, nutritional diet, or maintaining an exercise routine, may actually cause some discomfort and take effort and discipline. Or it may mean giving up pleasure, such as the tension-relieving cigarette or extra highball. Physicians have long realized that a patient's compliance with treatment recommendations depends largely on whether the patient connects it with relief of pain. All too often, the patient does what the doctors says only as long as he or she hurts; once the pain is gone, the patient tends to disregard the doctor's recommendations.

Second, there are often complex factors within an individual's personality that interfere with his or her responsible self-care. A low self-esteem, feelings of being unworthy, self-destructive impulses, guilt, a proneness to accidents -- these psychological characteristics will defeat the best intentions of sustaining health. As my uncle, Dr. Karl Menninger, wrote in his book, Man Against Himself:

> One would expect that in the face of the overwhelming blows at the hands of fate or nature, man would oppose himself steadfastly to death and destruction in a universal brotherhood of beleaguered humanity. But this is not the case. Whoever studies the behavior of human beings cannot escape the conclusion that we must reckon with an enemy within the lines. It becomes increasingly evident that some of the destruction which curses the earth is self-destruction; the extraordinary propensity of the human being to join hands with external forces in an attack upon his own existence.

What's to be done? Assuming that most people feel the same way as Joe Namath and want to maintain good health, what is necessary to prompt their consistently practicing responsible self-care?

An important element is health education. For most people, body functions are a mystery, but that need not be. Health education should begin in the home, continue in school, and be reinforced by the media and contacts with health providers. Youngsters are naturally curious about health issues, with changing concerns as they grow older. Ideally, health education should parallel the health concerns and interests of children as they grow. These interests are spelled out in an exemplary publication entitled Teach Us What We Want to Know. Published for the Connecticut State Board of Education by the Mental Health Materials Center, this book is a report of a survey of 5,000 students in selected schools from kindergarten through grade twelve, prepared by Ruth Byler, Gertrude Lewis and Ruth Totman.

The practical impact of health education provided by health practitioners was demonstrated in a recent study of the use of exercise in the convalescence of cardiac patients at the University of Kansas Medical Center. A therapist was assigned to an experimental group early in the recovery phase of their illness. Part of his job was to educate patients about their illness, the medication and how it worked, the physiology of the heart, etc. A control group of patients did not receive that tutoring. Subsequently, it was found that the compliance of the patients in the experimental group in following the treatment recommendations was substantially greater than those patients in the control group. The key was giving knowledge to patients that resulted in their being able to be in more rational control of their destiny, so that they could assume responsible self-care.

In order to practice responsible self-care, it is important to recognize care is needed for emotional as well as physical health. All too often in discussions of health care, the physical health problems are emphasized and the emotional health problems are glossed over. Attention is focussed on the soma; the psyche is disregarded; yet there is in reality a subtle and profound inter-relationship between the mind and the body. Just as some of the greatest resistance to responsible self-care stems from complex, subconscious psychological conflict, so effective programs to encourage responsible self-care must support general mental health.

Such programs must respect the needs of people under stress, since the relationship of stress and illness -- both physical and emotional -- is increasingly recognized. (Note: see appended article, "Friday, Already? The T.G.I.F. Syndrome -- Response to Stress.") Such programs should also instill in people a sense of hope that things can and will be better in the future. Programs which help people feel better about themselves by increasing their sense of worth and self-esteem will at the same time increase their motivation to take better care of themselves.

Thank you.

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Friday, Already?

The T.G.I.F. Syndrome—Response to Stress

W. WALTER MENNINGER, M.D., *Topeka*

LIFE IS A CONSTANT process of adaptation by the human organism to its environment, in search of what Dr. Karl Menninger has labeled the vital balance.[1] Inevitably, there are breakdowns in that adaptation, maladjustments which are manifested in a wide range of behaviors. Illness represents one class of maladaptation which comes within the province of the physician.

In recent years, physicians have studied coping efforts and why patients fall ill.[2-4] Various rating scales of life events have been developed and correlated with the incidence of illness according to the degree of stress they put upon the organism's adaptational capacity.[6-13] Most clinical practitioners are keenly aware of the relationship between certain stressful events and the onset of illness. In many instances, the illness develops in the midst of the stress, as in the case of a school principal who required hospitalization for coronary insufficiency in the midst of a community crisis involving his school.

There is another group of symptom reactions or illnesses which become evident only *after* the stressful event has been experienced, at which point it is safe for the individual to let down. During the period of stress, the individual has the capacity to rise to the occasion and sustain an adequate level of adjustment, giving little or no evidence of strain to himself or to others. Then, when the stressful pressures are removed, the individual becomes aware of how much energy and effort were required to meet the demand. Some degree of exhaustion is perceived, along with the development of additional symptoms which may range across the whole spectrum of illness. Insofar as the onset of illness parallels the kind of letdown evident when a task is completed or at the end of the work week, it may be considered a kind of "T.G.I.F. Syndrome" (Thank God, It's Friday).

Four case illustrations are provided which represent the range of symptoms and illness which may be encountered as a T.G.I.F. syndrome.

Case One—Minor Symptomatology

A 23-year-old medical student, in good general physical health, reported a repeated problem with canker sores, herpes simplex labialis. He noted that the sores consistently developed in relation to academic examinations, always becoming apparent at the point when he had completed his studying or while he was taking the examination. The sores followed a consistent one-week course before clearing.

Case Two—Moderate Incapacitation

A 28-year-old white male, white collar worker, in good general health, voluntarily took on an additional job assignment which was not really required of him. The assignment did indirectly benefit him, giving him some added knowledge about his regular work; however, he had mixed feelings about the assignment as time went on. Feeling a pressure to complete it, he decided to work on the assignment during a holiday. On the way to the office, he first noted a visual scotoma which he had never before experienced. Subsequently, he had malaise, nausea and vomiting, and the symptoms progressed to a full blown classical migraine headache, which effectively incapacitated him for the day.

Case illustrations are provided which represent the range of symptoms and illness which may be encountered as a T.G.I.F. Syndrome.

Case Three—Severe Incapacitation

A 43-year-old junior executive of a firm with 750 employees was left in charge of the plant operations while the two senior executives were attending out-of-state meetings. During this period, a crisis developed among the line personnel who threatened to strike. The executive was involved in a series of emergency meetings with all shifts of personnel, and successfully forestalled precipitous action by the personnel. He prepared a report of his actions and findings for the senior executives. On their return, the most senior executive decided to meet with the personnel himself, without reading the report prepared for him. One week later, the junior executive developed an acute upper respiratory infection, with

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fever of 103 F, leucocyte count of 17,000 cells, and symptoms of general malaise and pharyngitis which cultured no specific pathogenic organism. The illness persisted with general flu-like symptoms, fever and sore throat for a week.

Case Four—Profound Incapacitation

A 25-year-old air force officer in World War II was in good health and performed uneventfully on his bombing missions over enemy territory. He experienced no special physical reactions to fear or anxiety until the last of his missions before his return to the United States and the non-combat status. On that mission, he was asymptomatic until the plane was back over friendly territory and safe. At that moment, he experienced profound nausea, vomiting, and abdominal distress. The symptoms persisted and were of such intensity and duration that he required immediate medical treatment on landing, and remained incapacitated for four days.

Discussion

Stress occurs when an organism is forced into strenuous effort to maintain essential functions at a required level. When an additional load is placed on the organism, in order to maintain adequate functioning, some compensatory efforts must be made. Dr. Karl Menninger has described various levels of compensatory activity or "special regulatory maneuvers" in his discussion of the vital balance. The coping phenomenon was also observed by Ruff and Korchin[14] in a study of adaptive stress behavior in astronauts. In this study, Ruff and Korchin observed that the astronauts remained sharp and effective during the pre-flight and flight periods, but tended to be somewhat less clear thinking, less energetic, and more anxious after the flight was over.

Ruff and Korchin equated their observation with what other investigators have labeled the "end phenomenon." Basowitz and colleagues[15] encountered the phenomenon in a study of paratroopers in training. They preselected two groups of men on the basis of initial hippuric acid excretion levels (a biochemical measure previously found to be related to anxiety). One group was predicted to be more, and the other less, likely to become anxious under the stress of jumping. The group which was expected to be less anxiety prone did in fact function better and expressed less anxiety throughout the training period. But the daily measurements were continued to the day *after* graduation. And on that day, the low group showed decidedly higher levels of anxiety and related physiological and psychological measures of anxiety. Apparently, they had the capacity to block the disturbed responses during training, only to relax the controls after they had passed the crisis.

Grinker and Spiegel[16] reported a comparable phenomenon during the war, observing that anxiety attacks often occurred following withdrawal from a combat zone, much as reported in Case 4. Other observers of war casualty situations have been astonished to note that when the wounded were brought into combat hospitals, only one out of three complained of enough pain to require morphine. Most of the soldiers either denied having pain from their extensive wounds or had so little that they did not want any medication to relieve it. These men were not unable to feel pain, for they complained as vigorously as healthy men at an inept vein puncture.[17]

Discussing the end phenomenon, Ruff and Korchin[14] note: it is as though the individual's adaptive mechanisms come to work best when they are needed most, and that he permits himself to suffer many of the disturbances when it doesn't matter so much.

Levi[18] discusses three essential phases in the adaptational process of the individual to stress: alarm reaction; resistance to the invasion; and exhaustion. The most common manifestation of the T.G.I.F. syndrome is a simple kind of exhaustion, with conscious awareness of the demands to which one has had to respond. Yet, for a considerable number of individuals, there is more clearly an illness response. The classical migraine headache occurs after the stress; and the poorly understood "stress ulcer" after severe trauma characteristically develops 6-14 days after the initial injury.[19] Experimental study by Brady,[20] of ulcers in "executive" monkeys found the gastric acid secretion did not occur during the work situation, but it did appear afterwards, in the rest period.

What actually prompts illness is still unclear, but a number of factors come into play. These include the motivation of the individual, his personality strengths or ego resources, his learned patterns of dealing with or defending against stress, and the resources or supports in the environment. The illness itself may represent an additional stress; however, in this context it more likely serves a number of other psychological functions. It may represent a resolution for the anger and resentment toward the stress experience; it also is a regression of behavior which allows the individual to get some compensatory attention, to escape from regular responsibilities and have reduced demands upon him, to have a period of dependency which is acceptable and for which he does not have to feel guilty. Sick leave is justifiable leave from work. It allows time for an individual to recuperate and regain a sense of balance after the stress.

In every case, although the physician rarely thinks of illness in such terms, illness represents an instance where the limits of successful adaptation of the individual have been exceeded. Most individuals seek to deny their limitations, despite the reality that we all have limits.

The reaching of limits may be clearly evident in the physical or psychological symptoms noted during or following the stress. Clearly, some life events challenge the adaptive capacity of the individual more than others, giving rise to the scale of life events and the determination of life change units as a predictor for illness.

The special significance of the T.G.I.F. syndrome is related to the degree to which it signals the limits of an individual; in effect, the symptoms or illness signal that the ultimate limits of the individual's adaptational capacity have been approached. The patient may not realize the significance of the illness, and it is important to help the patient become aware of his limits as reflected by the syndrome. Further, besides having time to recover from the stressful experience, the patient may need some help in accepting limits and not feeling guilty at having limits.

From a preventive medicine standpoint, the physician should carefully assess the significance of the illness as a symptomatic expression of the patient's limits. It may be possible to predict the likelihood of repeated episodes of comparable stress in the patient's life, as well as estimate the patient's capacity to deal with future stress. The patient should be advised accordingly.

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The **Chairman**. Thank you so much, Doctor.

Dr. Foege, the health risk appraisal seems like a good method for making people take stock of how they live and what the consequences might be to them. How expensive is it to administer the questionnaire, and who pays for it?

Dr. **Foege**. At the present time, Mr. Chairman, there are both private and public sources of this kind of a program. In the public market, we have been making this available to State health departments, to health fairs, and to various groups, and it costs us less than 50 cents to process any individual health risk appraisal.

In the private sector, I would expect that these programs will be becoming more and more important, providing companies with this tool.

Dr. **Menninger**. If I might add, Senator Hatch, it is my understanding, because of the cooperativeness of the CDCC, in the Boy Scouts, for instance, we have been informed that if we can convince the organization of the value of it, the CDCC will make available the computer program that will let us get it on the computer in the Boy Scout organization. Then they can make it available to members in that organization to take advantage of it.

The **Chairman**. That is good.

I am sure, Dr. Foege, that the private health industry has also developed some methods to assess health status. Representatives of two firms have contacted me and indicated that they have what they call unfair competition from CDCC. Do you think this is a significant problem to you or them?

Dr. **Foege**. I do not think it is a significant problem. If one looks at the things that have to be done with health risk appraisal, one has to develop the tool, and it is still evolving. I think this is best done at a national level because any one company does not have the data base.

No. 2, one has to promote its use. We would promote the private and public use of it.

No. 3, the tool has to be evaluated. I would suspect that at sometime we will be involved in only improving the tool and evaluating it, and at that point it will be widely available in the private sector.

The **Chairman**. I see.

We have all known people who change their behavior from time to time. Has the Canadian experience had some long-term benefits, in your opinion?

Dr. **Foege**. They began working in about 1972 or 1973, so they have a few more years of experience. It is hard to tell how much of the improvement that we are seeing in health in general can be related to this tool alone because we know at the same time cigarette smoking is decreasing and hypertension is being better treated, and so forth, but there is clearly evidence that health is improving, that cardiovascular death rates are going down, and the Canadians are very happy with the results of their use of this tool.

The **Chairman**. I have been interested in the not too recent, but nevertheless fairly recent, activities out in my home State of Utah as a result of our tremendous State geneological base, which I think is unsurpassed in the world. They are now computerizing whole segments of our population and going back as far as they can, even out of the State, to try and determine strains of various types of diseases as they have appeared in the geneological lines of the various individuals.

I would imagine that would be very helpful, too—if we could have a data base of geneological capacity to be able to trace back just exactly which families have had certain difficulties.

I would think that would even apply in the mental health field as well, in fact maybe even more so—I guess not more so, but it probably would apply and would be very beneficial for the medical profession and for the descendants of various family lines. Would you agree with that?

Dr. FOEGE. Very much so.

I think you point out one of the real needs in this area—that we cannot continue to use a national base. This has to be used at State-local levels as Finland did with its county of 180,000 people. We encourage more and more of this sort of State use.

The CHAIRMAN. Dr. Naughton, recently it was announced that actuarial studies have found that the ideal weight range probably now is about 10 pounds more than we used to think it was for the average individual.

I think maybe you need to explain that this does not mean that people can neglect physical fitness programs just because they may be within the ideal weight range. Would you agree with me on that?

Dr. NAUGHTON. Yes. Certainly from the studies that I have conducted both on healthy and unhealthy people, the mean weights have always been higher than the normative tables. About 10 to 15 pounds is a good range.

One of the misconceptions in that range and with the kind of programs that are usually conducted is that these people will lose 10 or 15 percent and invariably not much weight loss occurs in these fitness programs. They become more fit, they develop more lean body mass, their body shape changes, but their body weight usually stays pretty much the same.

The CHAIRMAN. I have been very interested in your comments here today on exercise and the need to exercise as part of an overall health commitment, and that if we could get our society to do more of that, especially the sedentary parts of society, we would all be better off.

What would you think would be the single most important step for the private sector to undertake in promoting exercise and health promotion programs?

Dr. NAUGHTON. I think promoting activity and, of course, in a sedentary, middle-aged population, making sure the population has a good examination before they become active because they might be at some risk of hurting themselves, either muscular-skeletally or with heart disease or something else; and, of course, remembering that walking is a very good exercise.

The CHAIRMAN. And almost everybody can do walking.

Dr. NAUGHTON. And bicycle riding; and, of course, now that more and more machinery is available for home exercise, this is a good way of going.

The problem is that people do not enjoy, as a population, exercising by themselves, so group programs for population activity are going to be important. The individual people are out there jogging, bicycling, and doing their thing, but if you are really talking about massive population participation neighborhood and community programs are going to be important.

Dr. **Menninger**. Could I just make one comment about that?

The **Chairman**. Surely.

Dr. **Menninger**. I shared with your staff a booklet that was prepared by Blue Cross-Blue Shield that is available through their plan. It is entitled "Feeling Better," but it focuses on the importance of exercise, and much of the book is devoted toward developing motivation and educating people to the degree to which exercise can make a difference and make you feel better, and that you do not have to jog 20 miles a day to do it.

It may be that people will start dancing again and realize that that is not a bad form of exercise.

One of the most fascinating is the so-called aerobic dancing that has taken over in a lot of places, and it is really fun to do.

The **Chairman**. I went to an exerthon out in Utah recently, and it was held in a football stadium, and all of these women and men showed up in these leotards and tights. It was a very interesting experience for me and everybody else, too. They went through this aerobic dancing to music, and they just looked like they were having the greatest fun.

Dr. **Menninger**. It is. It does not have to be a drag. It can be fun.

My wife has discovered that it is very deadly if she gets on an exercycle and just has to exercycle, so she waits for the evening news, and she will ride the exercycle through the evening news.

The **Chairman**. That could cause a heart attack, you know—watching Ted Kennedy on television, or myself occasionally. [Laughter.]

Dr. **Naughton**. I think one other area that should be emphasized besides the prevention of heart disease in exercise is the importance in this aging population of the issue of keeping old people active so that they can have nutritional diets. That is an important issue.

Of course, the more active older people are, the less dependent on nursing homes they should become, and that is an area that has not been studied in any large-scale way at all yet.

The **Chairman**. I was thinking—we have a home health care bill, the Hatch home health care bill, that we hope will get through this year or maybe next year. The purpose, of course, is to allow the aged person—and this probably would appeal more to you, Dr. Menninger, because of your specialty—to make the choice whether to stay in their own home or be institutionalized or go into a nursing home, and to bring the health facilities to their home which would really save the Federal Government an awful lot of money while, at the same time, giving them not only good physical health treatment but also good emotional health as well because they feel more relaxed and better in their own home where they are familiar rather than being in the care of somebody else.

It may be that the home health care deliverers might have a little better background in preventive health and what you have been talking about, Dr. Naughton, and it may very well be that

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they can do a tremendous service as they meet with these elderly people and help them in their homes.

So we are pushing toward programs like that rather than massive Government programs that tell people what to do and do not allow the proper and appropriate choices.

Dr. Menninger, we appreciate your testimony, and certainly the clinic founded by your family has a great regard throughout this country as one of the finest resources we have for mental illness problems.

I appreciate your recognizing that we all seek pleasure and we all prefer to avoid pain, which sometimes happens as we exercise, but, as you have said, feeling well really is a pleasure.

Do you find people who are mentally ill who otherwise are actually physically healthy?

Dr. Menninger. Yes; but this is sometimes because they kind of retreat from life and protect themselves from some of the distresses that the rest of us have. The reality is that there are a good many chronically ill mental patients who kind of insulate themselves from the kinds of stresses, and so they will have less of the cardiovascular disease problems often than the successful businessman and people who are otherwise involved.

The Chairman. That is great.

All three of you have contributed a great deal to our hearings, and I hope that your viewpoints as well as all of the others—these have been excellent panels—will be disseminated widely, because the people of this country need to realize that we can solve a lot of problems with a lot less medical cost if we just follow some of the advice that you folks have been giving here today.

I throw a challenge out to the medical community, which is a broad-based community, that this committee stands ready, willing, and able to try and assist you to reach those goals, and we have an open-door policy here where we really like ideas and particularly new ideas. We want to find ways where we might be able to have the Federal Government help rather than tell people what to do, and where our resources, which are limited, I think we are all starting to find out, might be utilized in the best and most efficient and good ways and manners to help the American people.

We would appreciate anything you care to bring in as input through the coming years, at least while I am chairman of this committee.

Dr. Menninger. Toward that end, I think there is a recognition that if people are in a position to be responsible for themselves they are healthy. The more they are dependent on others, the more that presents certain problems. I think the degree to which the philosophy of Government focuses on helping people help themselves, rather than taking over, is important.

The Chairman. My goodness, you sound like a Ronald Reagan disciple. It is certainly nice to have you here, and we appreciate your testimony today. Thank you so much.

Our second panel this morning is going to provide testimony regarding the role of the private sector and State governments in preventive medicine.

As we have already heard, the task is too great for the Federal Government, and we welcome suggestions as to how we can obtain all the help we can get.

Mr. Frank Stantonis the chairman emeritus of the American Red Cross and former chairman of CBC, the Commercial Broadcasting Co., in New York. He will discuss the role of volunteer organizations and corporations in health promotion.

Dr. Robert Bernstein is the commissioner of health for the State of Texas. He will discuss the contributions to preventive medicine by his State government.

Mr. Robert Johnson is the president of the Appalachia Regional Hospitals. He is here representing the National Council on Health Education which developed as the result of a previous Federal initiative by Elliot Richardson when he was Secretary of Health, Education, and Welfare. He will discuss the difficult task of educating our citizens.

Our final witness will be Dr. Stephen Barton who is on the faculty of the University of Alabama College of Medicine and has been assigned to be the director of the Task Force on Preventive Medicine by the Commission for Responsible Health Policy.

We are delighted to have you all here today.

You have got to forgive me. I planned on sitting through all of the testimony, but I will read it, and I do have to get to the White House. I could stay another 5 minutes, but rather than get up and interrupt you in the middle of your testimony, Mr. Stanton, I am going to have our physician advisor on this committee, Dr. David Sundwall, who himself is an eminent physician, take your testimony and get it down for us. Of course, I hope that it will be widely disseminated because what you people have indicated you are going to say in the statements I have read is just tremendous for what we are trying to accomplish with these hearings.

We are delighted to have you here. If you will forgive me, I cannot help it but I have go to the White House. Thank you. Mr. Stanton.

STATEMENT OF FRANK STANTON, CHAIRMAN EMERITUS, AMERICAN RED CROSS

Mr. STANTON. Mr. Chairman, I am torn between trying to give a quick summary and sticking with my text, and maybe it will be shorter if I stay with the text. If I had more time, I would have written you a shorter letter.

Let me say that we welcome this opportunity to join in this discussion of preventive medicine and health promotion.

For the record, I was president or vice chairman of CBS, Inc., for 27 years. At the conclusion of that period in 1973, I was appointed chairman of the American Red Cross by the President and served in that post for 6 years.

My interest in health and related concerns of the American people increased significantly during the past 2 years when I chaired a study of the health needs of our citizens for the Red Cross.

It is this experience and the examination of the future role of a voluntary health services agency that illuminates some of the opportunities which beckon organizations in the private sector to promote personal health and the prevention of illness and injury.

It is a subject, Mr. Chairman, that deserves the attention you and your distinguished colleagues and members of the Commission for Responsible Health Policy are giving it.

The purpose of the Red Cross Health Services study was to identify critical health needs and to delineate what the American Red Cross, as this country's leading volunteer organization, should do to meet these needs.

Leading authorities in medicine and other health professions, agencies with specific health interests, business, labor, education, and government officials from all levels were involved.

The direct result of this study is a commitment by the Red Cross to a long-range nationwide strategic health services plan aimed at improving the health of the public and reducing disabling illnesses, accidents, and untimely deaths.

The Red Cross believes a major effort in health promotion, disease, and accident prevention can substantially reduce human suffering and relieve some of the burden of our costly medical care system.

We were impressed that despite today's problems with inflation, energy, and unemployment, the health of the American people has never been better. Having said that, I must add that we learned we have a long way to go.

We have come to take the cures of modern medicine for granted, but at the same time we tend to forget that improved health can come from preventing diseases and injuries rather than treating them after they occur. Indeed, it is time we realize that an ounce of prevention is preferable to a pound of cure.

Our aim must be not only to live longer but to live better. The public is increasingly interested in health and recognizes that individuals can take steps to improve their health. For example, in a nationwide survey conducted in May of this year by Georgetown University, almost 2 out of 3 people interviewed said they were very concerned about their health; 3 out of 4 believed they have control over their own physical health; and 8 out of 10 believed they have control over their own mental health.

The Red Cross efforts will be to: Implement its long-range strategic health services plan; equip individuals to help themselves for better health; and to collaborate with other preventive and medical organizations, as well as voluntary agencies, business, labor, government, and foundations to achieve common health goals for the Nation.

To the extent our efforts succeed, we will help reduce illness and the staggering economic burden on individuals, families, communities, and thereby the country as a whole.

The Red Cross Health Services Plan will provide education and services to help people make informed lifestyle choices, for it is the individual who plays the principal role in reducing risks associated with his or her behavior.

To put this Red Cross initiative and the potential it holds for the American people in perspective, we should all recognize that health promotion and disease and injury prevention is not a new field for the Red Cross.

In May of this year, Red Cross celebrated its centennial. During its first 100 years of services to the citizens of this country, there were many accomplishments. High on the list was our work in health.

Red Cross conducts the Nation's largest volunteer health and injury prevention instructional programs. Millions of American families have been touched through such Red Cross courses as first aid, water safety, preparation for parenthood, parenting, and home nursing.

Last year alone, almost 6 million Americans earned Red Cross certificates in these and other Red Cross courses. This figure does not include the uncounted millions who have been touched by the Red Cross during disasters—flood, fire, nuclear, tornado, and hurricanes—at first aid stations, immunization clinics, blood pressure screening stations, home visits, and health fairs.

Our blood services supplies over half of this Nation's blood requirements. Transporting disadvantaged and disabled persons to medical care facilities are additional efforts of Red Cross' health services. In fact, it is probably safe to say that almost every American family has benefited either directly or indirectly through Red Cross.

This brief description of the Red Cross health initiative, which is central to this hearing, brings us to the demanding question of how best the resources of this country can be harnessed to meet the health needs of tomorrow.

If the purpose of this discussion is to develop a strategy for meeting the Nation's health needs through private and public initiatives, it follows as surely as day follows night that cooperative efforts are absolutely essential to success, and it is here that we see the Red Cross as one of the primary volunteer resources in planning and implementing community and national programs.

Our study—the one I referred to earlier—persuades us that the public and private sectors can work together effectively. The Department of Health and Human Services and many of its units provided outstanding assistance to the Red Cross study, including the personal involvement of Secretary Schweiker. Currently, we are working with the Department on a national health media campaign.

The volunteer health sector across the spectrum, including the National Health Council and its component members, provide an effective resource in carrying out the purpose of this hearing.

The American Heart Association and Red Cross have actively cooperated for years to provide millions of Americans with cardiopulmonary resuscitation training, and there are thousands of individuals alive today who have recovered from cardiac arrest because of this training.

As an interesting example of corporate initiative and voluntary agency collaboration, during this month NBC and the American Red Cross are carrying out the largest campaign in history to stimulate public awareness of the critical importance of cardiopulmonary resuscitation training.

A series of 30-second spot announcements and 30-minute programs is to be broadcast at frequent intervals during July by over 150 NBC affiliated and owned television stations. Red Cross chapters from coast to coast will provide printed information on CPR and a special training program to tie into the NBC effort. This is a most significant milestone of public service carried out by a privately motivated national health education effort.

On yet another front, last month the United Way of America distributed a second paper explaining its support for a variety of health promotion and disease prevention services.

In recent planning on hypertension, the Department of Health and Human Services, the Black Health Providers Task Force, and the Red Cross are increasing assistance to black Americans who suffer from an excessively high risk of severe hypertensive cardiovascular disease.

Industry, voluntary agencies, and government are not only willing but eager partners in health. Hoffman-La Roche, Inc., will produce for Red Cross a series of 10 health films for use on television. ITT Continental Baking Co. is collaborating with a number of private groups, including Red Cross, on a program entitled "Nutrition for Older Americans," and the Department of Agriculture is assisting Red Cross to develop nutrition programs as well.

I have the following recommendations for consideration:

The volunteer sector depends upon funds from the public, industry, and foundations as well as government. Many government-funded programs carried out by the private sector are being cut, and while philanthropic giving is growing, inflation is increasing at an even greater rate, causing the donated dollar to be worth less in program implementation.

Government action is needed to help stimulate contributions to private, nonprofit agencies. This could be done through tax incentives such as the charitable contribution legislation, S. 170.

Dollars donated to voluntary agencies provide more service than government programs because of the compound effect of volunteer participation in carrying out those programs. The volunteer health sector must have this support if it is to meet the enormous potential of public service.

Moreover, I recommend that national health promotion be designed to inform the public about what individuals need to do in taking responsibility for their own health. By the very nature and scope of the task, this requires a large-scale plan that will focus on specific health areas and target groups. It should provide the public with information about critical health risks and ways for individuals to make informed health promotion, disease prevention decisions.

In the short term, it will be critical to identify existing resources for implementation. Multiple funding from the public and private sectors will be needed to support a coordinated effort.

The process of informing the public must include all media with perhaps initial concentration on the effective use of the family television receiver, whether fed by conventional broadcasting, cable, disc, or cassette.

Experience clearly indicates that the public can be informed and motivated by a wide range of approaches, but it is necessary to compete with other interests for the public's attention. That is at once the challenge and the answer.

Without a well-designed major media campaign we will not have raised the health promotion, disease prevention consciousness of the American people, and without that awareness we will not see an increase in the overall wellness in the United States. Small-scale hit and miss education and motivation efforts will not do it. There must be a critical mass to achieve the potential of a well-informed public which will accept responsibility for its own good health.

I believe the American people will respond. They must for their own good and for the good of tomorrow's generation. The major task will be to design, to fund, and to implement a national strategy, and that starts here. This is a worthy goal. It is an ultimate achievement that can significantly improve the health of our citizens.

Dr. **SUNDWALL** [acting chairman]. Thank you, Mr. Stanton.

Your testimony indicates a great deal of experience and thoughtful preparation, and it is appreciated.

The Senator has questions for each of you which he has reviewed, and I will respectfully submit one of them to each of you after we have heard testimony from all of you.

[The questions and responses referred to above follow:]

American Red Cross

National Headquarters
Washington, D.C. 20006

September 25, 1981

Dear Senator Hatch:

This is in response to the questions raised in your August 21 letter.

With respect to the most important activities the administration should take at this time, I mentioned in my July 17 testimony how important it is that a national health promotion strategy be designed to inform the public about what individuals need to do in taking responsibility for their own health. This would be a comprehensive plan that will focus on specific health areas and target groups. By using elements of the current Health and Human Services publications, *Healthy People*, *Promoting Health/Preventing Disease*, *Objectives for the Nation*, *Prevention 1980* and *Strategies for Promoting Health for Specific Populations*, a draft of a national promotion plan could be designed by Secretary Schweiker's office.

A representative group of government, media, industry, medical, private sector and volunteer agencies should be convened to review the draft and agree to actively support those parts of the promotion efforts which are most appropriate to the goals and resources of that organization or agency. Multiple funding from the public and private sectors would be needed to support a coordinated national promotion effort. The process of informing the public must include all media with perhaps an initial concentration on the effective use of the family television receiver, whether fed by conventional broadcasting, cable, disc or cassette. As I stated in my testimony, without a well designed major media campaign we will not raise the health promotion and disease prevention consciousness of the American people. And without this awareness we will not see an increase in the overall wellness of the American people. It is my opinion that leadership by the administration in a national promotion effort is the most important initial activity for the administration to undertake in coordinating the task of improving the health of all Americans.

Your second question asks about the single most effective and economic health promotion we have worked on. The Red Cross has made a major contribution by educating many millions of Americans to provide first aid to people with injuries and by preparing individuals to cope with emergencies. Nearly six million individuals now participate in Red Cross health and safety courses each year, and our experience clearly indicates that lives are saved, disease and injuries prevented, home care of the elderly and ill is effectively provided, all of which significantly reduce the economic burdens on our health care system. Red Cross will continue to support and expand our health and safety educational efforts, our very effective blood services and also to provide assistance to disaster victims and members of our armed services and veterans as major contributions to the health and welfare of all Americans.

Your last question asks for suggestions to identify existing resources. It is my impression that significant resources to accomplish the objectives of health promotion and disease prevention exist. The need to identify resources is not the major problem. The effective involvement of these resources working cooperatively toward a commonly accepted set of goals is the real issue. If there is action to implement a national promotion effort, as previously described, this will provide an excellent opportunity to bring many resources together and to focus their attention on a common set of goals to improve the health of our citizens. A national promotion strategy will provide the opportunity to both identify resources and to effectively involve them in meeting the critical needs to raise the health promotion, disease prevention consciousness of the American people.

I appreciate the opportunity of responding to your questions and look forward to receiving the record of the work of the Senate committee on Labor and Human Resources and the Commission for Responsible Health Policy.

Sincerely,

Frank Stanton
Chairman Emeritus

The Honorable Orrin G. Hatch
Chairman, Committee on Labor and
Human Resources
United States Senate
Washington, D.C. 20510

Mr. CHAIRMAN. We would now like to hear from Dr. Bernstein.

STATEMENT OF ROBERT BERNSTEIN, M.D., COMMISSIONER OF HEALTH, STATE OF TEXAS

Dr. BERNSTEIN. Thank you, Dr. Sundwall.

Mr. Chairman and committee members, I will give a shortened version of the paper I turned in which also has an addendum of some additional data.

Dr. SUNDWALL. That is fine.

May I just indicate, as the Senator did, that all submitted testimony will go in the official record after the panel discussion.

Dr. BERNSTEIN. Most of the killer infectious diseases are controlled in this country now, and Americans have the benefits of that achievement as well as other major public health services at low cost.

In Texas, the cost to its residents in this fiscal year for operation of State and local health departments will be about $16.93 per capita. That figure, to be sure, does not reflect all the costs, public and private, for prevention of illness in the Texas population, but it gives an order of magnitude for comparison.

Contrast that with the cost of maintaining an elderly ill person in a skilled nursing facility at the rate of $12,300 per year or the cost of keeping a bed filled in a general hospital of at least $72,000 per year, and those are 1979 data.

Cost effectiveness, a term which is referred to so often today, is certainly served by prevention of disease and injury broadly.

In the years to come and today, we have to change the behavior—we do not have to, but individuals have to start their change in behavior—with discarding of nearly lifelong habits and adopting new styles of life.

We all know—and they have been mentioned—the various problems and abuses that we must learn to avoid. Individuals can no longer lean only upon others to do the work of improving their health or only, for example, on passive controls such as chlorination of water and sterilization of canned foods.

We cannot achieve a future significant uplift in health status without a corresponding alteration in the lifestyle of an individual.

Can we do it at all? Of course. Is the task too great? No. Are we suggesting the brainwashing of the American population for their own good? No.

We can achieve the goal by doing it as always—one bit at a time. We know this because progress has already been made.

Will we brainwash anybody? No more than we brainwash our children by requiring them to be exposed to a State-prescribed curriculum for 10 to 12 years in public schools.

Let me give you a few Texas examples. Texas State and federally supported immunization program: Texas was one of the last States to develop a very strong program in this area, and its lowered morbidity rates from vaccine-preventable diseases showed this. In fact, the story in Texas during the 1970's was a magnificent story in that regard.

In 10 years of the program's operation, it has achieved most enviable levels of immunization. This was done by intense public and private efforts at personal contact with parents almost from the moment of birth through the school years.

Another such venture, more recent but also successful, which shows great cooperation, was the resettlement of the huge influx of refugees from Southeast Asia.

Nearly everything was against the refugees who had to make major changes in their lifestyles and behavior. Our Governor pursued the complexity of the problem and acted quickly to form a task force to guide the resettlement efforts.

They were initially just a group of State agency representatives that expanded at its second meeting to become a forum for all involved groups, including the refugees themselves--volunteer agencies, religious organizations, private industry, trade associations, community groups, educators, welfare officials, and so on.

The refugees' health concerns were thus provided for with an understanding of their related social, mental, and spiritual needs, and with a full appreciation of community attitudes and the political undercurrents and overtones existing in many of the communities in which these immigrants found refuge.

We were able through these means to have a direct communication ultimately between the health worker and the refugee.

Another example: Three other States share with Texas a largely uncontrolled border with Mexico. As a result, unique health hazards are seen regularly.

For example, the health of mothers and their newborns. Citizenship for the infant or at least a valid U.S. birth certificate is of more value to some than good prenatal care and safe birth. Despite this and because of such cross-cultural programs as the improved pregnancy outcome program and a great deal of cooperation, the Texas infant mortality rate of 12.1 per thousand live births in 1980 is now the lowest in its history and below the U.S. average for the first time.

This has been accomplished through improved prenatal systems of care in which the high-risk mother or infant has been identified in publicly funded prenatal and child health clinics and then referred earlier to the appropriate provider and hospital.

The final example gets to one reason for the success of the above programs, and this has been alluded to several times earlier. It shows why other programs that will encourage or make permanent changes in individual behavior will succeed.

Our particular program called "Achieving your Potential" has been instituted among the 4,500 employees of our health department. It is well designed, well delivered, reaches individuals, motivates them to change their own habits, and we have had hundreds of uniformly flattering comments attesting to the value of the program.

The key need is not just the traditional role of public health education which is so vital in giving citizens factual knowledge on a topic but also the motivation of those citizens to use those facts. All of this must be built on the concept of self-identity, value, and determination, so well pointed out by Dr. Menninger and others.

What could be accomplished by National and State legislation toward these ends? Certainly, continuation and expansion of those programs that motivate both staff and clients alike.

Certainly, it might be considered that while the block grants are still in some sort of chaos, I guess we might think of putting public health education and health promotion—earmark some money for that specifically to go to the States.

There is some public health education funding built into hypertension and other things, but I am talking about a program such as alluded to earlier of some type of formal wellness program in the near future, the encouragement of immediately appreciated awards for those individuals who observe a healthier lifestyle—life and automobile insurance rates adjusted downward, for example—for those whose health appraisals and risk analyses indicate a lower than average risk.

Funding and monitoring of the accuracy of those appraisals could be underwritten, in part by public funds. They are now by the centers for disease control, but it could be increased.

Finally, in the long run, both the U.S. Department of Education and the States need a carefully researched and tested program for initial health education of preschool and elementary schoolchildren. This program should be designed to strongly motivate them to avoid certain behavior patterns and must provide frequent reinforcement of the health-enhancing ideas so that the children can withstand, if you will, the bad influence that most adults now have on youngsters' lifetime health habits.

In accomplishing this goal, we should not hesitate to ask for assistance from advertising and marketing experts.

So, let us, those of us who are dedicated to promoting the health of the American people, get about that business.

Thank you very much.

[The prepared statement of Dr. Bernstein and responses to questions by him follow:]

TESTIMONY
OF
ROBERT BERNSTEIN, M.D., F.A.C.P.
TEXAS COMMISSIONER OF HEALTH
JULY 17, 1981

COMMITTEE ON LABOR AND HUMAN RESOURCES
UNITED STATES SENATE

Some years ago, I am told, a distinguished and discerning biostatistician noted the decline in mortality rates from infectious disease because of public health efforts over the course of this century. She observed that, if the trend continued, everyone would live their "three score and ten" years, as appointed in the Bible, and die suddenly, perhaps on the anniversary of their birth. Was that, she wondered, the goal of public health in this country?

It might be the goal of insurance actuaries, but I certainly do not agree with it nor do others in public and private sectors of medicine. Medicine, indeed, has the duty of keeping people alive; this is the heritage of Hippocrates and his forebears. From the great civilizations of the East, we have assumed the obligation of keeping people well. But there is a third obligation in medicine: to improve that level of wellness as much as possible. Doctor Howell and Doctor Welch recognized the latter overy sixty years ago when they titled the first public health school in this country as the School of Hygiene and Public Health, at the Johns Hopkins University.

Most of the killer infectious diseases are controlled in this country now and Americans have the benefits of that achievement as well as other major public health services at low cost. In Texas, for example, the cost to its residents in the fiscal year now ending, for operation of state and local health departments will be about $16.93 per capita. That figure, to be sure, does not reflect all the costs, public and private, for prevention of illness in the Texas population, but gives an order of magnitude for comparison. Contrast it with the cost of maintaining an elderly, ill person in a skilled nursing facility at a rate of $12,300 per year or the cost of keeping a bed filled in a general hospital of at least $72,500 per year (1979 datum).

The problems that we must address today and in years to come, as Doctor Foege and Doctor Millar of the Centers for Disease Control have pointed out for several years, are those that require changes in the behavior of the individual: the discarding of nearly lifelong habits and the adopting of new styles of life. Examples of these problems are drug and alcohol abuse, high-speed travel without restraint, the old sins of gluttony and sloth, and the production and use of carcinogens. Individuals can no longer lean upon others to do the work of improving their health or on passive controls such as chlorination of water or sterilization of canned foods to do the same. We cannot achieve a future uplift in health status without a corresponding alteration in the life style of the individual.

Can we do it at all? Is the task too great? Am I suggesting the brainwashing of the American population "for their own good"? Yes, no, and NO!, in that order. We can achieve the goal by doing it as always, one bit at a time; we know this because progress has already been made. Will we brainwash anyone? No more than we brainwash our children by requiring them to be exposed to a state-prescribed curriculum for ten to twelve years in public schools.

Let me give you several specific examples from Texas that will illustrate my points. I have attached amplifying information to my written remarks.

First, its state- and federal-supported immunization program. Texas was one of the last states to develop a strong program in this area and its morbidity rates from vaccine-preventable diseases showed this. In ten years of the program's operation, it has achieved enviable levels of immunization. How? By intense public and private efforts at personal contact with parents, almost at the moment of birth of their children and upward through the school years.

Another such venture, more recent but also successful, has been the statewide program for resettlement of the huge influx of refugees from Southeast Asia. Nearly everything was against the refugees, who had to make major changes in their life styles and behavior. We are most fortunate in Texas to have a governor who perceived the complexity of the overall problem and who acted quickly to form a task force to help guide the resettlement efforts. Though initially just a group of state agency representatives, it expanded at its second meeting to become a forum for all groups involved, including the refugees themselves: volunteer agencies, religious organizations, private industries, trade associations, local community groups, educators, welfare officials, and so on. The refugees' health concerns were thus provided for with an understanding of their related social, mental, and spiritual needs and with a full appreciation of community attitudes and the politcal undercurrents and overtones that existed in many of the cities and towns in which these immigrants had found refuge. With the health-screening grant from the federal government (that was provided a little bit late and a little bit little for a completely effective job), we have managed to open wide the direct communication link between our health workers and the refugees.

With three other states, Texas shares a border with Mexico and, as a result, a unique hazard to the health of mothers and their newborns: United States citizenship for the infant, or at least a valid U.S. birth certificate, is of more value to some than good prenatal care and safe birthing. Despite this, and because of such cross-cultural programs as the Improved Pregnancy Outcome Program, Texas' infant mortality rate of 12.1 per 1,000 live births is now the lowest in its history and below the United States average. This has been accomplished through improved perinatal systems of care in which the high risk mother or infant has been identified in publicly funded prenatal and child health clinics and referred earlier to the appropriate private provider and hospital for risk counseling, diet modification, or necessary treatment.

My final example gets to the reasons for the success of the above programs and why other programs that will let individuals make permanent changes in their behavior will succeed. It is a program called "Achieving Your Potential"[1] that we have instituted among the 4,500 employees of the Texas Department of Health. It is a well-designed and well-delivered program that reaches individuals and motivates them to change their habits. We have had hundreds of uniformly flattering comments from our employees attesting to the value of this program. The key to health improvement is not just the traditional role of public health education in supplying citizens with factual knowledge and learned opinions on a topic but also the motivation of those citizens to use those facts and opinions.

What could be accomplished by national and state legislation towards these ends?

For now, continuation and expansion of those programs that motivate both staff and clients alike and for those programs that penetrate the walls of traditional cultural beliefs among the many subgroups in our population.

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[1] Copyright, Pacific Institute

In the near future, the encouragement of immediately appreciated rewards for those individuals who will observe a healthy life style. Life and automobile insurance rates could be adjusted downwards, for example, for those whose health appraisals and risk analyses indicated lower-than-average risk. Funding and monitoring of the accuracy of those appraisals could be underwritten in part by public funds.

Finally, in the long run, both through the U.S. Department of Education and through the states, we need a carefully researched and tested program for initial health education of pre-school and elementary-school children. This program should be designed to motivate them very strongly to avoid certain behavior patterns and that will provide frequent reinforcement of the health-enhancing ideas so that children can withstand the bad influence that most adults now have on youngsters' lifetime health habits. In accomplishing this goal, we should not hesitate to ask for assistance from advertising and marketing experts.

I would like to leave you with a thought from over a century and a half ago. Even though he opposed the admission of Texas to the Union, I think it most fitting to quote the distinguished senator from New Hampshire, Daniel Webster. In his first Bunker Hill oration, he spoke of ". . . a noble pursuit, to which the spirit of the times strongly invites us. Our proper business is improvement. Let our age be the age of improvement. . .Let us develop the resources of our land . . . and see whether we also, in our day and generation, may not perform something worthy to be remembered."

Let those of us, then, who are dedicated to preserving and promoting the health of the American people, get about that business.

ENCLOSURES: 8

ENCLOSURE (1)

PER CAPITA COSTS OF
STATE AND LOCAL HEALTH DEPARTMENTS IN TEXAS
FISCAL YEAR 1981

Appropriated to Texas Department of Health	$144,825,115[1]
Less funds for local health departments	(8,296,426)[2]
Combined budgets, state-participating local health departments, all sources	106,053,381[2]
Total state/local funding	$242,582,070
1980 population, Texas	14,328,000[3]
Per capita cost of state/local health departments	$16.93

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[1] H.B.558,p.II-43, 66th Texas Legislature,reg.session

[2] Bureau of Community Health Services, TDH

[3] Decennial census, rounded

ENCLOSURE (2)

COST OF INSTITUTIONAL CARE IN TEXAS

CATEGORY OF CARE	COST PER DAY	ANNUALIZED COST, ROUNDED
Community hospitals, 1979 [1]	$198.75	$72,500
Psychiatric hospitals, 1979 [1]	65.85	24,000
Skilled nursing facility,March 1981 [2]	33.64	12,300
Intermediate care facility III,3/81 [2]	26.04	9,500
Intermediate care facility, mentally retarded, I, 3/81 [2]	46.96	17,100
State mental hospital (facility costs)[3]	60.07	21,900
(all costs) [3]	75.44	27,500
State school for the mentally retarded (facility costs) [3]	48.08	17,500
(all costs) [3]	60.79	22,200
State prison system(healthy prisoners)[4]	8.61[5]	3,100

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[1] Texas Hospital Association Planning & Research Division

[2] Texas Department of Human Resources

[3] Texas Department of Mental Health and Mental Retardation Accounting Section

[4] Texas Department of Corrections, Public Affairs Office

[5] Costs are net. Prison system is partly self-sufficient in food production, etc.

ENCLOSURE (3)

TEXAS IMMUNIZATION PROGRAM

Immunization Levels in Texas Public Schools

Table I reports year-by-year public school immunization levels, and indicates significant improvements over the ten-year period that the Texas school immunization law has been in effect. Levels prior to passage of the school law in 1971 are not available, but there have been the following improvements in protection since the first report was obtained during the 1971-1972 school year: tetanus-diphtheria, 18%; poliomyelitis, 23%; measles, 20%; and rubella, 21%. Mumps requirements were not added until the 1979-1980 school year.

TABLE I

IMMUNIZATION LEVELS IN TEXAS PUBLIC SCHOOLS
SINCE PASSAGE OF LEGISLATION IN 1971

PERCENT OF STUDENTS PROTECTED BY SCHOOL TERM[1]

VACCINE	71-72[2]	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80	80-81
DTP/Td	79	90	92	96	96	97	97	98	98	97
POLIO	74	88	93	95	96	97	97	98	98	87
MEASLES	79	91	94	97	98	98	99	97	99	99
RUBELLA	78	91	94	97	98	98	99	99	99	99
MUMPS[3]	--	--	--	--	--	--	--	--	96	97

[1] Percent given is the percentage of students protected in the required age groups.

[2] 1971 was the first year that the school immunization law was in effect.

[3] 1979 was the first year that mumps vaccine was required.

Reported Cases of Vaccine-Preventable Diseases in Texas

When vaccine-preventable disease morbidity in 1980 is compared to that in 1970, the year prior to passage of the Texas school immunization law, the following percentage chages in reported cases have occurred: diphtheria, -99.6%; tetanus, -21.4%; pertussis, -80.8%; poliomyelitis, -100%; measles, -97.9%; rubella, -98.4%; and mumps, -96.6%. The cooperative spirit of compliance with the law by school personnel and the public made these significant reductions possible. Table II shows the details of this remarkable improvement.

TABLE II

REPORTED CASES OF VACCINE-PREVENTABLE DISEASES
IN TEXAS, 1970-1980

DISEASE	1970	1971[1]	1972	1973	1974	1975	1976	1977	1978	1979	1980[2]
DIPHTHERIA	234	56	41	18	9	6	1	4	0	0	1
TETANUS	14	10	20	10	4	16	12	16	11	17	11
PERTUSSIS	437	282	185	115	99	137	36	75	132	104	84
POLIO	22	4	4	0	0	2	0	3	0	0	0
MEASLES	8,494	9,585	1,617	532	212	275	265	2,032	1,033	670	181
RUBELLA	8,409	4,414	1,596	1,136	317	370	267	776	407	212	132
MUMPS	6,150	9,231	5,108	3,786	3,500	4,077	1,755	995	1,527	908	212

[1] 1971 was the first year that the school immunization law was in effect.

[2] Provisional data

ENCLOSURE (4)

MEMORANDUM FROM DIRECTOR, INDOCHINESE REFUGEE HEALTH PROGRAM TEXAS DEPARTMENT OF HEALTH, JULY 6, 1981

Planning for the resettlement of Southeast Asian refugees provides several excellent examples of cooperation between public and private sector agencies. The American Council of Voluntary Agencies (ACVA) is a New York based council composed of representatives of private voluntary agencies whose state and local level affiliates must recruit sponsors for refugees before the refugees can be released to travel to the U.S. from refugee camps in Southeast Asia.

When refugees first set foot on U.S. soil it is at a U.S.P.H.S. Quarantine Station where they are given a cursory screening for certain health conditions. These conditions are entered on each refugee's record, or "ACVA form" which is forwarded to the public health agency in the state which is to be the refugee's official destination. The state health agency then forwards the form to the appropriate provider of public health services nearest the refugee's anticipated official destination.

The local public health agency then contacts the refugee resettlement agency which had made plans for the refugee's arrival, and the refugee's sponsor is contacted, and together they plan for the refugee to visit a clinic for a health assessment and further screening or preventive treatment for communicable disease.

The public and private sector also cooperate at the local level in the delivery of health care for refugees. The voluntary agency may provide transportation, perhaps even an interpreter, for the refugee's visit to the clinic.

In one city in Texas, the local health department makes tuberculin test supplies available to a refugee resettlement agency which has on its staff a former army medic. When refugees arrive in this city, they are taken to the refugee resettlement agency and during their brief orientation there, the tuberculin test is administered by the refugee agency staff member. Three days later the refugees are taken to the local health department where the tuberculin test is assessed by a physician and if indicated, preventive therapy can be initiated immediately. The refugees' own Mutual Assistance Associations and the refugee resettlement agencies are very helpful in encouraging refugees to go to public health clinics for screening and to continue in treatment if necessary.

Private practice physicians also participate in the public-private partnership of refugee health care. Cases of communicable diseases are reported by the private physician to the public health agency and in some instances refugee patients with diseases covered by public health categorical programs, e.g., Hansen's Disease may refer patients to the public health agency for treatment. This is a two-way partnership, however. When the public health agency finds through its refugee screening program a refugee with a disease or serious health problem which the agency cannot address, it tries to find a private physician who will make diagnostic tests and provide treatment. Private physicians have been very cooperative in this effort in Texas.

The Indochinese Refugee Health Program is a federally funded three year program, which in Texas is administered by the Texas Department of Health. It is implemented through contracts with local health departments in some but not all of the most heavily impacted counties in Texas. The availability of federal funds was limited to make the health screening program available to the extent needed in all of the high population counties.

One of the greatest problems in allocating federal funds and selecting target areas for health screening for refugees is knowing how many Indochinese refugees are in a given state or community. Officially arriving refugees (OARs) or primary destination arrivals, are those refugees whose primary destination is part of the officially pre-arranged resettlement plan. National level records are kept of primary destinations, by states, and Enclosure 4-a from Refugee Reports shows the relative number of OARs scheduled to arrive in each state through April 30, 1981. Records kept by the Texas Department of Health for the two-year period ending April 30, indicate that we have received an average of 10,412 Indochinese refugees per year, or 868 per month, or 28-29 per day, or slightly more than one refugee per hour.

This rate, however remarkable does not reflect the true picture of refugee arrivals because of the phenomenon of "secondary migration." Once refugees reach their primary destination upon arrival in the U.S., they have the same freedom as American citizens to move freely, accountable to no one. They need tell no one, not their sponsors or any agency when they are going to leave or where they are going, nor do they announce their arrival. This means that no governmental agency, at least in Texas, has an accurate count of the number of refugees migrating into the state.

The total Texas population of Indochinese refugees is now variously estimated by knowledgeable people in various branches of government to be from 60,000 to 75,000 and Houston and Harris County are believed to have 35,000. Refugee settlements are now reported to have formed a ribbon all along the Texas Gulf Coast and most of these people are secondary migrants. Through the Governor's Interagency Work Group on the Resettlement of Indochinese Refugees, we hope to be able to develop a means of accurately determining the total Indochinese population in Texas, but until then, we must rely on primary destination statistics which tell only part of the story, and on opinions of the impact of secondary migration.

Statistical Reports

Current Indochinese Refugee Population in the U.S. by State
As of April 30, 1981 Source: ORR/HHS

Alabama	2,204	Nevada	1,986
Alaska	439	New Hampshire	328
Arizona	3,128	New Jersey	4,600
Arkansas	2,527	New Mexico	2,280
California	167,522	New York	13,530
Colorado	8,229	North Carolina	4,075
Connecticut	4,429	North Dakota	534
Delaware	262	Ohio	6,586
District of Columbia	994	Oklahoma	6,591
Florida	8,927	Oregon	14,613
Georgia	5,094	Pennsylvania	18,847
Hawaii	6,083	Rhode Island	2,660
Idaho	918	South Carolina	1,754
Illinois	17,841	South Dakota	856
Indiana	3,810	Tennessee	2,992
Iowa	7,562	Texas	42,612
Kansas	6,322	Utah	6,187
Kentucky	1,752	Vermont	286
Louisiana	11,435	Virginia	14,677
Maine	707	Washington	22,394
Maryland	5,683	West Virginia	467
Massachusetts	8,347	Wisconsin	6,468
Michigan	8,658	Wyoming	362
Minnesota	16,152	Virgin Island	10
Mississippi	1,434	Guam	349
Missouri	4,437	Puerto Rico	33
Montana	1,035	Other	35
Nebraska	1,921	TOTAL	483,964

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Refugee Reports

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ENCLOSURE (5)

MEMORANDUM FROM DIRECTOR, MATERNAL AND CHILD HEALTH DIVISION
TEXAS DEPARTMENT OF HEALTH, JULY 2, 1981

. . .An approach emphasizing preventive medicine and health promotion is essential in the field of maternal and child health. This is being accomplished through the integration of the public health sector, private providers and the medical school community in the provision of screening and educational services aimed at preventing health problems. Examples of special projects in the field of M&CH that typify this approach in Texas are the Improved Pregnancy Outcome Program (IPO) and the Improved Child Health Initiative Program (ICHP) which will make available statewide proven pilot projects such as ferreting out the high risk patients in the M&CH network.

Because preventing maternal and infant morbidity and mortality is less costly than attempting to treat it, the IPO and ICHP programs work through the public health clinics to provide prenatal care, developmental assessment, screening and education. Patients are carefully screened for risk factors that could adversely influence the outcome of the pregnancy and infant and child development. Contracts with medical school personnel provide physician consultation both by phone and during special clinic sessions for patients whose risk status makes such consultations appropriate. The social work component of IPO works to establish linkages with community resources and, importantly, to assist in making appropriate arrangements such as delivery or treatments with private medical providers.

The value of education, both of providers and consumers, to preventive medicine and health promotion is obvious. The IPO program has established contracts with both medical school and privately-owned hospitals serving as perinatal centers to provide continuing medical education in this field to smaller, outlying hospitals, and to community professionals. Consumer education is also important to this program's efforts, and is provided directly through the development and purchasing of educational materials for distribution to our patients. . . .

ENCLOSURE (6)

HEALTH CARE PROVIDED FOR HISPANIC MOTHERS AND CHILDREN

(Text of presentation by Director, Maternal and Child Health Division
Texas Department of Health)

This report will encompass family planning, maternity services, and child health care as part of comprehensive care in 46 counties that are on the border between Mexico and Texas. (Overhead) As you see, we include Public Health Regions 3, 8, 9, and 12. This is broken down into counties served by the public health regions and by the local health department complex. The amount of money that MCH and the Texas Department of Health receive under A and B funds totals $11,259,000. When we include state funds which total approximately $600,000 and special grants like ICHP (Improved Child Health Initiative Program), IPO(Improved Pregnancy Outcome Program), and Genetics, our total funding through DHHS and Title V is $13,573,102. The State of Texas for 1980 saw 77,787 unduplicated family planning patients, 45,061 unduplicated maternity patients, and a total attendance of 374,792 patient visits which includes return maternity visits (150,622) and return family planning visits (101,013). For the child health clinics, a total of 116,374 unduplicated number of patients were seen for a total visitation number of 221,137.

This is accomplished by a combined network of regional health departments andlocal health departments. The state is divided into 12 regions covering the 254 counties, and 67 separately-run local health departments. Local health departments are located in 48 counties, with 267 child health care clinic sites, 68 family planning clinic sites, and 82 maternity clinic sites.

Regions serve 88 counties which have 100 child health care clinic sites reporting, 89 counties reporting family planning from 68 sites, and 82 clinic sites reporting maternity patients.

Allocations for the various functions are as follows from out total budget:

1. Family planning, maternity, and child health care:$4,000,000
2. Special projects, of which there are nine: $3,800,000
3. Funds for MCH activities in local health dpts: $1,738,000
4. Grant funds(ICHP--two grants, IPO, and Genetics): $1,700,000
5. Regional program costs $600,000 and central office $400,000.

An approximation of the amount of Title V funds expended in these 46 counties /border regions/ is approximately $2,425,107. The number of patients seen in them is as follows: maternity: 13,512, of which 12,116 are Hispanic; family planning: 24,203, of which 22,224 are Hispanic; and child health care: 39,303, of which 36,065 are Hispanic. The average cost per patient is $60.73. The following data were gathered by . . .the MCH nurse coordinator in the central office (overhead). The selected 46 counties serving Hispanics are broken down into those in the public health region area and those that are existent in the services of local health departments. When we compare the totals for Texas in 1980, maternity total 45,061, of which 22,530 were Hispanic; family planning 77,787 (35,004 Hispanic); and child health care, 116,374, of which 64,005 were Hispanic. The number of Hispanics seen in the regional county health clinics was 6,207 while the number seen in the local health departments was 64,196. . . .

Breaking this down further into the areas immediately adjacent or very close to the Border(no more than 200 miles distant), we see the following statistics; they reflect the total MCH services to Hispanics in Texas as reported to the Division from local health departments and public health regions. The total unduplicated number of children served in four major counties (Cameron, Hidalgo, Starr,and Willacy) was 6429. Of these, 95 % were Hispanice, while in the state as a whole, only 55% of the total number seen were Hispanics. The total number of maternity patients seen in these four counties was 4,260, of whom 98% were Hispanic (statewide: 50%). Finally, the total for family planning in these four counties was 8,409, of which 8,268 (97%) were Hispanic(statewide: 45%).

These following data were received from the central office in Dallas (DHHS Region VI), covering the year 1979. There are 10 primary care projects which do not include dree-standing family planning clinics. The majority of the case load is Hispanic and these areas are Crystal City, Laredo, Hidalgo County, Harlingen, Del Rio, Rio Grande City, El Paso, Corpus Christi, and Eagle Pass. The total number of patients seen equals 98,625. Under one year of age, there were 7,259 and from one through four years of age, 14,000. The total number of encounters was 330,000.

The number of deliveries in birthing centers was about 1,400 to 1,500. These encompass those at Su Clinica (Harlingen and Raymondsville). The number of unduplicated patients seen in 1980 was 3,576.

Statistics from the Van Program in Del Rio. Unduplicated number of patients seen was 3,576. There is underreporting; Crystal City patients, for example, are not counted because they are improperly documented; the people in the clinic refuse to correct this situation. Unduplicated number of Hispanics seen was 3,264.

In regard to the Driscoll Children and Youth Project located in Corpus Christi, funded as a special project under MCH, the 1980 data show a total registrant number of 10,230. Number of Hispanics was 10,207.

Additional data from Title V projects. The Dallas C&Y registrant number is 12,905, of which 4,049 are Hispanic. Galveston has 4,984 registrants, of whom 1,294 are Hispanic. The San Antonio High Risk Infant Care Nursery has a total of 793, of whom 726 are Hispanic.

ENCLOSURE (7)

MEMORANDUM FROM CHIEF, BUREAU OF COMMUNICABLE DISEASE SERVICES TEXAS DEPARTMENT OF HEALTH, JUNE 26, 1981

One problem that seems to emerge again and again (and one which has eluded a satisfactory solution) involves our public health clinics that provide medical services. The problem extends far beyond public health activities and touches all aspects of human health.

Human diseases can be divided into groups according to basic contributing elements:[1]

A. Unhealthy lifestyle (behavioral factors)

B. Environmental hazards

C. Inadequacies in the health care system

D. Inate biological factors

Diseases based on life style contribute half of the mortality experienced in the United States. Yet, governments have been loathe to interfere with the individual's free choice of life style. Less than one percent of every health care dollar is spent on attempts to change behaviors which cause disease and death; over 80 percent is spent on the health care system.

From the narrower perspective of one who operates categorically-funded public health programs, the general observation can be seen as practical problems; one of these problems is seen in the operation of our venereal disease control programs. All things considered, the United States Government as a whole has contributed well to protecting the public from the ravages of venereal disease. The current dilemma is that despite all the hard work and the money that has been spent, the problem is getting worse. We have observed that recent trends in life style favor the transmission of venereal disease and it is fair to say venereal diseases are purely a matter of life style for many if not most of those infected. (But not all: Note that a woman who has intercourse only with her husband can be infected by him with gonorrhea or chlamydia and progress silently to advanced pelvic inflammatory disease risking chronic pain, infertility, ectopic pregnancy, major surgery, premature menopause, severe emotional trauma, marital discord, and even death.)

Venereal disease programs have justly received high national priority; in many states, as well, similar high priority has been given to services to treat and prevent these diseases. However, no venereal disease control program has adequately dealt with the fact that life style is the basic determinant of these diseases. Well-intentioned public response to increased venereal disease morbidity has typically resulted in more free clinics. Such clinics are readily justified if they serve indigent populations. On the other hand, a sharp increase has been evident among the clients of public clinics (venereal disease and others) of persons who obviously should, according to the prevailing public ethic of the United States, be paying for their medical care. In fact, many of these clients do pay for medical care through Blue Cross and other pre-payment plans, but the third-party payers are not called upon to reimburse the public coffers.

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[1] Leland, Marc. A New Perspective on the Health of Canadians. Office of the Minister of National Health and Welfare, Ottawa, 1979.

Among the many basic flaws in our system is the fact that the system absorbs part of the natural penalty which would be placed on the person who behaves in such a way as to get VD. We are, thus, almost promoting VD rather than preventing it.

Venereal disease is chosen only as an example of a widespread phenomenon. We supplement the incomes of farmers who grow tobacco; this results in making cigarettes available to our young people at reduced cost. Heart disease is our most notorious killer and there is room for much progress in encouraging behavior which prevents cardiovasculorenal disease. We can take much inspiration from the belief that recent changes in the "American Way of Life" with leaner, fitter bodies for the body politic have been the basis of the recent improvements in our mortality statistics.

The issue at hand is the need to prevent diseases which can be prevented only by changes in life style, i.e.:

Automobile accidents	-	drunk driving
Homicides	-	drunkenness
	-	use of firearms
Lung Disease	-	cigarette smoking
Hypertension	-	faulty diet
Heart disease	-	faulty diet
	-	lack of exercise

(and so on)

Any strategy to improve the health of our people should attempt to deal effectively with life style as an agent of disease.

ENCLOSURE (8)

Lifestyle Improvement From Education

LIFE Program

The Texas Department of Health feels strongly that prevention, exemplified by the Centers for Disease Control Health Education/Risk Reduction grant program, is the basis of public health and future funding for health promotion should be continued.

Examples of public and private cooperation on Health Education/Risk Reduction in Texas

The Texas Lifestyle Improvement From Education (LIFE) Program has as one of its basic program elements, to develop and maintain working relationships with voluntary health organizations, other public agencies, professional associations and health education groups which have the potential for positively affecting risk reduction activities in Texas.

During its first year, the LIFE Program developed and implemented a Selected Risk Factors Questionnaire focusing on the ten leading causes of death in Texas. The program is carried out by the nursing staff in our public health regions (in 5 of 12 to date). The nurse provides risk reduction counseling and literature to individuals using the public health clinics and makes referrals to community organizations and others offering services not provided by the health department per se, such as smoking cessation (American Cancer Society and American Lung Association), alcohol misuse (Texas Commission on Alcoholism, Alcoholics Anonymous Alateen), exercise (YM/WCA, city recreation departments), high blood sugar (American Diabetes Association); are only a few examples.

The Department's LIFE Program recently cosponsored a Wellness Conference for public school district personnel with the Texas Education Agency and others. Three more are planned with the goal of bringing risk reduction and health promotion into the public school health curriculum. This is the target group that must be reached if premature mortality and morbidity from chronic disease is to be reduced and we are to ultimately achieve the Five Goals For the Nation listed by the Surgeon General's Report on Health Promotion and Disease Prevention, Healthy People.

Other examples of cooperation include the establishment of a standing committee on Health Education by the Texas Medical Association, which includes a member from the Texas Department of Health.

The LIFE Program is represented on the Texas Interagency Council on Smoking and Health, a statewide multi-organization group focusing on the major problem of smoking. (Meets quarterly at TDH - Chairman Elvin E. Adams, M.D.).

The Texas Public Health Association, at its 55th Annual meeting, featured "Health Promotion in the 1980's".

The LIFE Program, through its Catalog of Health Education/Risk Reduction Services, encourages use of community risk reduction programs and services throughout the State.

The LIFE Program's three smoking and alcohol use intervention projects in Austin, Dallas and Houston are making a significant impact on these two important areas with the young target population. The benefits will far exceed the investment made since the experiences and materials developed can be replicated in future years.

The Texas Department of Health plans to continue its risk reduction efforts at the local level through the sixty-seven State participating local health departments and in business and industry. This was evidenced by the recent Houston/Galveston area Health Systems Agency's Good Health is Good Business Conference (April 1981). We feel that health promotion at the worksite is an essential objective if we are to reduce absenteeism, improve productivity and morale and reduce premature mortality and disability and the resultant insurance expenses and burden on the health care system.

The Texas Department of Health expects to benefit from many of the research contracts awarded by the Center for Health Promotion. These include Health Risk Appraisal and associated educational materials, survey of self-care programs, health education for children and youth, library health promotion resources, and community and patient education in primary care facilities. These are worthwhile areas to pursue in our effort to prevent disease and promote wellness.

Texas Department of Health

Robert Bernstein, M.D., F.A.C.P.
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September 16, 1981

Honorable Orrin G. Hatch
Chairman, Committee on Labor
and Human Resources
United States Senate
Washington, D.C. 20510

Dear Senator Hatch:

In your letter of July 28, you posed four questions concerning my testimony at the Senate hearings on preventive medicine and health promotion. My replies are as follows:

1. . . .What has been the most effective of your efforts to help /the Southeast Asian refugees/?

> Four members of my staff have just completed site reviews of refugee assistance programs in three metropolitan areas with major concentrations of these refugees. On the basis of their findings and the comments of local health directors and others, the provision of bilingual interpreters with the necessary vocabulary of health and medicine at public health clinics or as outreach workers is clearly the most effective of our efforts--and the one most appreciated by the refugees and health workers alike. This service has been made possible as part of a grant from the Centers for Disease Control, Department of Health and Human Services.

2. . . .Have you always found it beneficial to include the various subgroups of the population in planning and implementing health programs?

> Yes, certainly during my tenure at the Texas Department of Health. It is not only beneficial but essential also for any public agency that deals with such a heterogeneous population as that of Texas. This representation of subgroups is seen all the way from the Texas Board of Health and its advisory committees to the managers and supervisors of the major programs of the Department.

3. . . .What is the most effective and efficient health prevention effort you provide through the Texas Department of Health?

> I do not believe that you intended to use the phrase "health prevention," for I would have to choose among cigarette smoking, sexual promiscuity, and alcohol overuse as answers! Either disease prevention or health promotion may have the term desired. For the former, our program for immunization of infants and children against the vaccine-preventable diseases would rank at or near the top; I described this and provided supporting data in my testimony. If the question was directed at health promotion, then the choice is very difficult to make between a direct patient service such as that of the Improved Pregnancy Outcome Program (Federally supported) or an indirect service to the residents of the state such as those in the field of environmental monitoring and protection. The difficulty of the decision is due in part to the problem of measuring "wellness," "health," and "better health" as outcomes of any particular program.

4. . . .Would you explain /Federal encouragement of unhealthy life styles and provision of free care for the consequences/?

> The Federal Government continues to subsidize, through mandatory price support, and to encourage, through Commodity Credit Corporation loans (three-quarters of a billion dollars in outstanding loans, 1978), the production of tobacco. Americans consume over a billion pounds annually, principally through cigarette smoking. According to the Surgeon General, "...the health damage resulting from cigarette smoking costs this nation an estimated 27 billion dollars in medical care. . ."[1] each year. He goes on to say, ". . .these costs are borne by the entire public. . .through health insurance, . . .and other private and taxpayer-supported programs."[1]

I appreciate the opportunity to have testified and to respond to these additional questions. Please do not hesitate to contact me if I may be of further assistance.

Sincerely,

Robert Bernstein

Robert Bernstein, M.D., F.A.C.P.
Commissioner

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[1] U.S. Department of Health, Education, and Welfare. Smoking and Health/ a report of the Surgeon General. 1979. Washington, D.C. DHEW Publication No. (PHS) 79-50066, p. vii

STATEMENT OF ROBERT L. JOHNSON, PRESIDENT, APPALACHIA REGIONAL HOSPITALS, LEXINGTON, KY.

Dr. SUNDWALL. Thank you very much.

Mr. Robert Johnson.

Mr. JOHNSON. In the interest of time, I, too, will just highlight some testimony, but I particularly want to spend a little time talking about the complexity of changing behavior through educational processes.

In 1971 when the President's Committee on Health Education was formed—and that committee, which was active from 1973, conducted public hearings throughout the country and used a variety of expert task forces—in its final report it mentioned, among the other things—and I am quoting:

> "Health education" is a process that bridges the gap between health information and health practices. Health education motivates the person to take information and do something with it to keep himself healthier by avoiding actions that are harmful and by forming habits that are beneficial. It is a frustrating paradox that while health information has grown year by year in volume and excellence, health education has developed much more slowly. The public must be made clearly aware of the profound difference between health information, disseminating facts, and health education, persuading people to change their lifestyles. They must also be encouraged to accept the fact that health education is a longer, costlier, broader, deeper, and more complicated process.

It is that particular point that I wish to impress upon this committee—that is longer, costlier, broader, deeper, and a more complicated process.

I would like to read from a couple of points in the testimony and then summarize the other items.

If you accept, as I do, the concept that the decisions people make and that the actions they take in their daily lives have, in combination with other factors such as heredity, environmental quality, and medical care, a substantial impact on their health and risk of disease, then clearly popular behavior cannot be ignored as a fundamental part of any logical effort to improve health.

At the same time, however, if we also recognize that the individual's freedom to choose and act is powerfully constrained by the culture, then I think we must agree that popular health education in a democratic society is a very complex business indeed.

The easiest way to insure that we will make no progress in developing a more effective strategy for health promotion is to give lipservice to such goals without any genuine commitment to exploring exactly what the accomplishment of such goals may require in terms of changing our established institutions and cultural norms.

It should be troubling and painful to take an honest look at the health problems of lifestyle that appear least susceptible to our efforts for change.

For example, as a society we deplore the prevalence of alcoholism among young people especially. Many people would also suggest that this prevalence is a measure of health education's lack of effectiveness.

In fact, ours has been a hard-drinking culture throughout our history, and not even an act of Congress prohibiting the sale and consumption of liquor succeeded in curbing our tendency to make alcohol the center of our social activities.

For our health promotional activities and, indeed, even law to be successful, the individual and society as a whole must already be favorably predisposed to the general idea that is being put across.

In many important regards our culture does not favorably predispose, enable, or reinforce a healthy lifestyle. We should not be surprised nor unduly discouraged by this fact.

The unhealthy factors and forces in our culture that tend to celebrate stress and competition, an unhealthy diet, avoidance of exercise, and dependence on "miracle" products to solve our problems are not the sum total of our culture. We must recognize, however, that they are unlikely to change as a result of occasional lectures, leaflets, and scattered public service announcements.

If we are going to build the kind of milieu and atmosphere which really has to do with changing values, we are going to have to have the kind of concentrated effort and national strategy which Dr. Stanton just referred to.

Also in pointing out the complexity of making these kinds of changes, let me just comment for a moment about specificity for groups.

The notion that we can do all things for all people or go at it in the same way, I think, is fallacious. It makes absolutely no sense to talk to 15- and 16-year-olds about the problems of potential carcinoma of the lung or emphysema at the ages of 65 or beyond when most 15- and 16-year-olds cannot even conceive of what it would be to live to be that old in the first place.

One that I have used on any number of other occasions is that one of the most unhealthy things I know is to be unemployed. We have population groups in this country whose opportunity for self-esteem and self-realization are so poor and so limited that to talk to them about healthier lives strikes me as being totally erroneous unless we can help them see, as was pointed out by some of the other speakers, that there is an advantage in being healthy in itself and that it may help them with some of their much more fundamental problems.

But the notion that an unemployed person ought to think very seriously about drinking less, or smoking less, or eating less strikes me as being ludicrous.

All I am suggesting is that this is a difficult problem we are all talking about. We are all products of our experience, our religion, our values, our culture, all sorts of things which influence our behavior, and any public education program must recognize that complexity and must recognize the need to tailor its intervention efforts.

The National Center for Health Education was created to be a catalytic force in the assembly of health education efforts in this country, especially in the private sector in trying to work in some partnership form with the Government.

The national center, I think, at this point knows more about elementary school health education curriculums than any other single organization in the country. It has been involved with a great diversity of support of business, educational organizations, foundations, and a very close partnership with the Federal Government.

Even though it has been in existence a relatively short time, I would like to think that some of the heightened consciousness, particularly among employers around the country, has been a result of this kind of partnership effort on the part of the national center and the many differing areas in which it has been able to work cooperatively.

One of the things that very recently has started is a rather major undertaking by the insurance industry which grew out of some of the interests of the national center and people who are involved in both groups. It has to do with some clinical trials for preventive services in a life cycle study. This is really following up on some work of Les Breswell and Anne Somers.

Dr. Stanton was one of the original members of the board of directors of the national center for Health Education and knows very well of the success that organization has had in trying to bring about this sort of cooperative effort on the part of private enterprise.

There are, however, some very major difficulties. As has been mentioned before, and I would certainly emphasize, we do lack good research. We do not have a research base on which to build when we come talking about public education.

Particularly, there are some very difficult ethical questions that we must face because we are talking about value judgments. We are talking about changing the way people live.

One of the other major difficulties is that we have not begun to think through in any depth the interrelationship and complementary nature of the many forces that we have, professions and forces, who really are involved in the whole matter of health promotion and health education.

I do think there is a very real need for Government assistance. I think the Federal Government should reduce fragmentation a great deal in its own programs with respect to health education and promotion. I think it certainly could, as the Bureau of Health Education was trying to do, publicize and promote successful community programs throughout the country for others to learn from.

I think it could support research. I think it could look into the business of reimbursing health education in the medicare and medicaid programs, and I certainly think it could look at the notion of tax incentives for employers investing in health promotion.

But I think the major role here is that of the private sector because, again, I feel so strongly about the fact that we are engaged in influencing and changing behavior, and it is a thin line in a democratic society concerned about behavior change and behavior control.

I think together, with Government playing its appropriate role and with the private sector, through the volunteer efforts that were well described by Frank [Stanton], and the pluralistic approach of all of the rest of the private sector where we would begin to build that consciousness and, in many ways, probably just pervade the entire society over a period of time, we could begin to see the value changes come, but they would come as something that was wanted by the American people.

Thank you.

[The prepared statement of Mr. Johnson follows:]

Robert L. Johnson*
Member of the Board
National Center for Health Education
211 Sutter Street
San Francisco, CA 94108

HEALTH EDUCATION - WHO SHOULD BE RESPONSIBLE?

Statement to U.S. Senate Committee on Labor and Human Resources
Room 4232 Dirksen Senate Office Building
Washington, D.C.

July 17, 1981

Mr. Chairman, Members of the Committee

Who you believe should be responsible for promoting health depends to a considerable degree on what you believe are the determinants of health or disease. Looking back at history from the vantage point of the 1980's, it is possible to discern substantial changes in our theories about disease prevention and health promotion. It was not, in fact, until the late 19th Century that medicine took on the scientific character that it has today.

With the emergence of microbiology we developed a theory about disease that is sometimes called the medical model. Essentially this theory says three things. First, it suggests that for each illness or problem there is an identifiable cause. Second, it suggests that the cause is external to the person who has the problem and, therefore, beyond that individual's control. Third - following from the first two - it hypothesizes that health is dependent chiefly on professional interventions for health care.

As a consequence of the wide acceptance of this theory about the professional locus of health responsibility, medical care has become our third largest industry and accounts for nine percent of our gross national product. In fact, we spend more for professional health care than the total gross national product of every country in the world but six. This enormous investment in professional health care has been a comparatively recent development.

Following World War II, we set about building the capacity to respond to the civilian demand for health services held down during the Depression and War years. As we made progress in expanding capacity, in the 1950's a new belief was enunciated. At a White House Conference on Aging, the idea that access to health care services - and, presumably thereby to health - should be a right guaranteed to every citizen by governmental action was first advocated as a principle of public policy.

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*Mr. Johnson is a Past President of the National Center for Health Education and is currently President of the Appalachian Regional Hospitals in Lexington, Kentucky.

As this thesis gained popularity in the 1960's, we took two very important steps towards translating this aspiration into reality. First, we treated the demand side of the equation by reducing financial barriers to access through Medicare and Medicaid. Second, we treated the supply side by a massive investment in expanding the system's capacity to deliver services. Governmental support was provided for research, manpower training, neighborhood health centers, mental health centers, emergency medical services, substance abuse control, and much, much more.

What were the results? More people gained access to health care services and the quality of that care improved by a variety of measures. At the same time, costs were driven sharply upward. As the cost of providing quality care for any given individual skyrocketed, the goal of making such care available for everyone became impossible to accomplish without sacrificing the pursuit of other desired social goals. Clearly, either we would have to make some hard choices or we would have to rethink our model for preventing disease and improving health status.

While the most visible issue, costs were not the only or even the most important challenge to the idea that health is improved by massive investments in medical care alone. As the common and curable infectious and other diseases were eliminated, a larger portion of morbidity and mortality was attributable to chronic diseases that were less satisfactorily treatable by professional interventions. In analyzing the emerging disease patterns, we rediscovered some old beliefs about environmental sanitary practices and added new insights about disease etiology and human behavior. Thus, in the 1970's we arrived at a theory about health that many of us feel shows promise of stimulating a second public health revolution. It is now widely accepted that health is the complex product of heredity, environmental quality, culture, professional health care and - to a major degree - the decisions people make about how they choose to live on a day-to-day basis.

So widely accepted is this proposition today, that it is often difficult to remember how innovative it seemed in the early 1970's, or how slow our public policies and patterns of support have been to adapt to this more complex conceptualization of disease prevention and health promotion.

In the 1970's, we did substantially increase our efforts to address problems of environmental pollution. We did repeal, substantially amend or restrict the further expansion in our heavy concentration on medical care capacity building. We also rediscovered the importance of health education and the role of the individual in disease prevention and self-care.

Widespread interest was stimulated in particular by the work of the President's Committee on Health Education. This prestigious Committee of private citizens and health professionals studied the state of the art from 1971 to 1973 through a series of public hearings and the deliberations of expert task forces. In the course of their efforts, the Committee arrived at a number of findings that are relevant to this perplexing question of responsibility for health education. At the core of their findings was their concept of health education.

> "Health education" is a process that bridges the gap between health information and health practices. Health education motivates the person to take the information and do something with it -- to keep himself healthier by avoiding actions that are harmful and by forming habits that are beneficial. It is a frustrating paradox...that while health information has grown year by year in volume and excellence, health education has developed much more slowly. The public must be made clearly aware of the profound difference between health information (disseminating facts) and health education (persuading people to change their lifestyles). They must also be encouraged to accept the fact that health education is a longer, costlier, broader, deeper and more complicated process...
>
> Purposes and Challenges, p. 17
> Report of the President's
> Committee on Health Education

If you accept, as I do, the concept that the decisions people make and the actions they take in their daily lives have - in combination with other factors such as heredity, environmental quality and medical care - a substantial impact on their health and risk of disease, then clearly popular behavior cannot be ignored as a fundamental part of any logical effort to improve health. At the same time, however, if we also recognize that the individual's freedom to choose and act is powerfully constrained by the culture, then I think we must agree that popular health education in a democratic society is a very complex business indeed.

The easiest way to ensure that we will make no progress in developing ~~a~~ more effective strategy for health promotion is to give lip service to such goals without any genuine commitment to exploring exactly what the accomplishment of such goals may require in terms of changing our established institutions and cultural norms. It should be troubling and painful to take an honest look at the health problems of lifestyle that appear least susceptible to our efforts for change.

For example, as a society we deplore the prevalence of alcoholism among young people especially. Many people would also suggest that this prevalence is a measure of health education's lack of effectiveness. In fact, ours has been a hard drinking culture throughout our history and not even an Act of Congress prohibiting the sale and consumption of liquor succeeded in curbing our tendency to make alcohol the center of our social activities. For promotional activities and, indeed, even law to be successful, the individual and society as a whole must already be favorably predisposed to the general idea that is being put across.

In many important regards our culture does not favorably predispose, enable or reinforce a healthy lifestyle. We should not be surprised nor unduly discouraged by this fact. The unhealthy factors and forces in our culture that tend to celebrate stress and competition, an unhealthy diet, avoidance of physical exercise, and dependence on "miracle" products to solve our problems are not the sum total of our culture. We must recognize, however, that they are unlikely to change as a result of occasional lectures, leaflets, and scattered public service announcements.

If we are to make any progress in developing a more adequate and successful strategy for popular health education, we cannot assume that any very simple answer or theory will be adequate for the very complex problems involved. Why? First, whatever factors contributed to the emergence of the problem in the first instance will tend to continue to contaminate our decision-making about its solution; second, those actions that appear to be most logical in the short run are easy to adopt precisely because they don't represent any fundamental change; and, third, complex problems aren't solved in any single stage - they require a sequence of evolutionary and transitional phases to deal with the multiple causative and contributing factors that make up that problem.

Because they recognized the complexity of the challenge before us, the President's Committee on Health Education stressed the need for every sector of our society - voluntary organizations, business and industry, mass media as well as government - to contribute substantially to the public's health education. Moreover, recognizing the limitations of government in promoting individual behavior change in a democratic society, the Committee concluded that the needed leadership for national action in popular health education should come from a non-profit organization in the private sector. Therefore, they recommended the establishment of a National Center for Health Education to function as a strong catalytic force to provide the stimulus and assistance needed to help each different sector of society to initiate programs appropriate to its responsibilities or to get better results from ongoing efforts.

The Committee's recognition of the need for a new institution did not imply that government has no responsibility. Indeed, they recommended that the federal government should have a focal point to ensure that the various fragmented governmental programs and efforts be coordinated to greater effect. As a result of this recommendation the Bureau of Health Education was administratively created within the Center for Disease Control in 1975. Later, in 1976, legislation was enacted to create an Office of Health Information and Health Promotion in HEW. As a consequence of both of these developments, health information, education and promotion have received greater prominence and attention in federal policy development and programs.

Creating a National Center for Health Education as a unique new kind of institution in the private sector proved to be a more difficult challenge. In the course of a study funded by the federal government and conducted by the National Health Council, hundreds of organizations and individuals participated in the process of its establishment. Since its creation the National Center has been supported by contributions from business and industry, foundations, professional societies, voluntary agencies, labor unions and personal contributions, and governed by a distinguished and broadly representative Board of Directors. (See Exhibit) Drawing the principal support for its programs from these private sector sources, the National Center for Health Education also has performed several governmental contracts in instances where these projects provided the basis to move programs from governmental to private sponsorship or to convene representation from the public, voluntary and commercial sectors to address issues of mutual concern.

The NCHE's activities have ranged from the development of curricula for elementary school health education through the promulgation of a code of practices and standards of evaluation of smoking cessation programs to efforts to upgrade the professional preparation and establish a basis for the ultimate credentialling of professional health educators. Recently, the Board of Directors of the NCHE has identified health education in educational institutions and health education in the workplace as its highest priority action targets.

This focus derives in part from the belief that there is a natural starting point for organized health promotion efforts in the education of youth and maintenance of health among the healthy adult population. In addition, educational institutions and the workplace offer two very different types of opportunities to develop a more multidimensional and balanced strategy for popular health education programs that draw upon the contributions of the private, voluntary and governmental sectors.

In the past health education programs have tended to be specialized and characterized in a fashion that produced fragmentation and inefficiency. If a problem was viewed as belonging to one field or institution, ideas and innovations developed in other fields tended to get overlooked. Health education in our educational institutions is an educational challenge - but it is also a health challenge. It is largely an official community function, but must draw upon the cooperative efforts of voluntary agencies, professional societies, and community leaders as well as the support of foundations and business and industry if we are to develop quality programs with the limited resources available. With a grant from the W. K. Kellogg Foundation, the National Center is presently developing a strategy aimed at achieving this kind of cooperative campaign to improve health education in elementary and secondary schools nationwide.

Similarly, effective programs for health education and promotion in the workplace are unlikely to emerge without multidimensional cooperative efforts involving all sectors of the community. While our largest industries may have the resources to mount comprehensive programs, only about 32 percent of the American working population is employed by large corporations. Of the total working population, approximately 68 percent are to be found in work settings of 250 or fewer employees, and 54 percent in settings of 100 or fewer employees.

This may mean that we have to think of strategies that take full advantage of the realistic opportunities for health action in the workplace by making effective use of resources and services in the surrounding community, by pooling resources and programs shared among several companies, institutions and agencies, or by working to create new community resources and services more responsible to the needs of the working population. Behind these difficult, but essentially logistical, problems lurk other more challenging difficulties.

At the NCHE, we are not suffering from any illusions about the magnitude of the effort that will be required to advance the quality and availability of health education programs in our society. Despite the many developments and signs that health education is attracting interest and support from every sector and level of society - especially and most importantly among the general public at large - there are major difficulties that inhibit progress. Some of these we are actively working on together with other interested organizations and some are more suitable for action by others.

First, as has been suggested by numerous sources, there is a lack of a solid research base to underpin the design of our programs. Much of what we are doing is still based on common sense and a limited number of studies. Progress in this regard is a broad responsibility shared by all sectors, but one that necessarily implies the need for more concentration of effort by academic institutions with governmental, private and philanthropic support.

Second, we need to give greater attention to the ethical questions that are inherent in promoting health. We are making value judgements about the way people live, and we are making every effort to persuade them to change their values and lifestyle. All of us who are concerned in any respect with health promotion have an obligation to explore these issues in much greater depth than we have in the past, whether we are formulating public policy or planning a specific program.

Third, health professionals, educators, engineers, business administrators, politicians and others need to think more deeply about the role of their professions - separately and collectively - in the context of our more complex ideas about health promotion. Each of us has a role and responsibilities for promoting health, but how our different efforts should evolve in a complementary fashion is by no means certain at present.

In particular, to be informed and thoughtful about personal decisions is a form of primary prevention that is recognizably separate and apart from medicine. Physicians are educated and trained in pathology - in the diagnosis and treatment of disease. If the problem is acute appendicitis, a surgeon is more competent to perform an operation than any other type of specialist. By the same token, however, if the concern is promoting health and wellness, then there might be considerable argument as to whose services are appropriate to seek for what kinds of assistance.

Within the field of health education, we are in the process of delineating these questions more sharply than they have been in the past. With the guidance of the eight national organizations of health educators, the NCHE has completed the first part of a several part study on the role of health educators. A task analysis has been accomplished to identify the functions of persons delivering health education and we are now in the process of surveying health educators to validate these earlier findings. We believe that this is a very exciting project not only because of the content, but also because of the cooperation and interest that it has engendered among the various professional organizations that in the past have had too little opportunity to debate these difficult issues across organizational boundaries.

As this project goes forward it underscores the concept that health education is a complex process requiring the contributions of many different people and institutions. Fundamentally, health education is not something that successfully can be done to an individual. There is no inoculation or magic potion that can be administered to create a health aware and motivated individual with the range of competencies required to make and act upon choices for health on a daily basis. Health education is a process that is done with the individual's active participation and with the combined skills and resources of many different people and institutions.

Government can assist in this process in many significant regards. For example, greater coordination among various programs across departments and at all levels is still needed to reduce fragmentation in governmental programs. Also, various changes could do much to stimulate action required in the private sector. For example, the federal government could perform its share of leadership responsibilities by collecting health promotion objectives from community health plans and articulating them for implementation in all the concerned sectors; by making available support for extramural research; by authorizing reimbursement for health and patient education under Medicare and Medicaid; by offering tax incentives to industries that invest in health promotion programs for employees; and by providing technical assistance where appropriate.

At the same time, it should be recognized that the thrust of such governmental efforts is to encourage and support the development of initiatives in the private sector, and that it is not government's responsibility in a democracy to limit the freedom of personal choice or mold the private behavior of the citizenry no matter how desirable the goal of improving health. By its very nature, the business of changing the culture and the lifestyle of the citizenry should be the product of pluralistic efforts largely in the private rather than the official domain. It is appropriate that voluntary promotional agencies and professional societies urge a course of action for health in unequivocal terms. It is appropriate for business and industry to assume a greater responsibility for health protection and promotion among their customers and employees. And it is appropriate that the very difficult issues that are involved in the more pervasive and widespread assumption of responsibility in all sectors of our society be explored in our communities in an atmosphere of freedom to choose the course of action that appears most acceptable and appropriate in a specific context as determined by the individuals most directly involved. This, after all, is the essence of what health education aims to achieve - to enable people to make difficut choices based on an informed understanding of the possible benefits and consequences of their actions. In the broadest sense, health education should be everyone's responsibility, although that responsibility will be exercised in different forms.

At the National Center, we are working with many different organizations and institutions to help them work together to greater effect and to increase awareness of the different roles and responsibilities that all sectors must assume in meeting the challenge of improving the health and quality of life in our society. In the seven years since the President's Committee made its report, it has often seemed that only the federal government could muster the resources to assert leadership in this crucial area. But I believe that the testimony that you have heard in these hearings offers encouragement to those of us who feel that the private sector must play a much more active role and take on more responsibility. This more diffuse kind of approach is not a simple answer, but it may be the only approach that is appropriate and acceptable. I am here to report to you that the National Center for Health Education stands ready to play the role envisioned for it by the President's Committee in making it possible for all sectors of our society to work together with greater efficiency and effectiveness to achieve our common goal.

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MARGARET E. WALSH Executive Director, National League for Nursing. Prior: Chief of Nursing Services, Veterans' Administration Hospitals, New York State, Pennsylvania and Washington D.C.; President, Pennsylvania Nurses Assn.; President, New York State Nurses Assn. Member: Board of American Assn. for World Health Organization; National Health Council; Coordinating Council of American Nurses' Assn. and National League for Nursing; and Triage Group of American Assn. of Colleges of Nursing, American Nurses' Assn. and National League for Nursing.

DR. ANNIE WAUNEKA Member, Navajo Tribal Council; Chairman, Tribal Council Committee on Health. Self-taught health educator. Recipient of the Medal of Freedom.

November 5, 1980

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September 10, 1981

Senator Orrin G. Hatch
Chairman
Committee on Labor and Human Resources
United States Senate
Washington, D.C. 20510

Dear Senator Hatch:

Your very thoughtful letter of August 27 to Mr. Robert Johnson, of the National Center for Health Education, has been directed to me. Mr. Johnson was good enough to represent the N.C.H.E. at your hearings because I was out of the country. I remain grateful to him for having represented us and for having presented our testimony.

You have asked for amplification of our testimony relative to four specific questions. We are happy to respond as follows.

I. What research questions do we feel are the most important to facilitate our work? Our response draws on two observations. First, the broad concept of health education and health promotion encompasses activities that vary from the traditional and well accepted to some that are extreme and "fringe" in their orientation. For example, patient education and the traditional field of preventive medicine and public health are well established and have long enjoyed a mainstream position. Medical self-care is less secure. Further along the spectrum is the promotion of "wellness" as something more than the absence of disease. Here one is farther away from the mainstream of credibility. This is not to say that programs created to achieve such objectives are without merit but, rather, that contemporary research is insufficiently well grounded to establish a base for them. Second, the extraordinary advances made in the biomedical sciences in the United States have been principally traceable to the extramural programs of the National Institutes of Health. Drawing on these two observations, together with the obvious fact that the biggest impact on the health of the American people over the next generation or two will be achieved by people themselves, rather than by advances in biomedical science, it is our recommendation that a base of credibility be given the health education/promotion movement by establishing a National Institute of Health Promotion within the National Institutes of Health and encourage it to create and oversee extramural programs of research in this field. The culmination of such a recommendation will be to insert a base of credibility under the health promotion movement similar to that which underlies that of the biomedical sciences. At the same time, it will help define the mainstream of the health promotion movement and thus isolate the fringe and elements. This suggestion has already been made by me to Secretary Schweiker who, I am enormously pleased to say, has expressed great enthusiasm for it.

II. What are the most important things the private sector can do to further programs in health education? As the president of a private sector agency that is committed to achieving precisely such an objective--an agency created at the urging of a Presidential Commission--I can state unequivocally that the private sector is prepared to accept the lion's share of responsibility for such activities; indeed, it is the strong preference of the private sector that this function not become governmental. American industry is currently moving to adopt programs in health education and health promotion for its employees; school districts across the United States are beginning to examine seriously the returns that may be produced from investing in competent programs of comprehensive health education; and major elements in the private sector (such as the Clearinghouse on Corporate Social Responsibility of the Insurance Industry, and the American Hospital Association), are moving spiritedly to support the development of hospital, community and other health promotion programs.

III. What constitutes the essential elements of a successful health education/promotion program effort in the private sector? Generally, such programs must be appealing to their audience; they must invite and excite voluntary participation (with the beneficiary absorbing a portion if not the total cost); and they must have the capability to maintain appropriate records; and undertake self-evaluation.

IV. How can the private sector assist in improving health education and promotion in our elementary and secondary schools? Our National Center for Health Education currently supervises the development and dissemination of the only, currently certified, comprehensive curriculum in school health education, involving kindergarten through the seventh grade. Continuing support of our efforts would, of course, be useful. In addition, voluntary agencies can be mobilized to assist in disseminating information about the availability of such programs, and I am pleased to note that the American Medical Association Auxiliary, the American Hospital Association Volunteers, and the American Red Cross have all recently dedicated themselves to such an objective. The abovementioned Clearinghouse on Corporate Social Responsibility of the Insurance Industry is currently giving leadership to this same objective and is prepared to do more.

We hope our responses are appropriate and that the information we have provided will be useful. We are certainly grateful for the attention you have paid this very fascinating subject at this time in our history.

Sincerely yours,

Merlin K. DuVal, M.D.
President

MKD/jmm

cc: The Honorable Richard S. Schweiker

Dr. **Sundwall**. Thank you very much, Mr. Johnson.

Senator Denton from Alabama is here to introduce one of his constituents, Dr. Stephen Barton.

Senator **Denton**. It is a pleasure for me to introduce Dr. Stephen Barton, a man who is a credit to the State of Alabama and to the medical profession.

Dr. Barton is with us today in his capacity as president and founder of the American Rural Health Association, but his credentials do not end there. He is also responsible for the establishment of the American Rural Development Association, editor of the Journal of Rural Health, and assistant professor in the Department of Preventive Medicine at the University of Alabama at Birmingham.

Dr. Barton, I am glad to see you again. I know the committee has much to gain from your testimony, and I want to personally thank you for being here.

I regret that Senator Hatch had to leave, but I understand he had to go to the White House, and I myself am at this moment chairing a hearing in the Judiciary Committee but wanted to take a minute to welcome this distinguished witness from my State.

Thank you very much.

STATEMENT OF STEPHEN NYE BARTON, M.D., PH. D., CHAIRMAN, COMMISSION TASK FORCE ON PREVENTIVE MEDICINE, PRESIDENT AND FOUNDER, AMERICAN RURAL HEALTH ASSOCIATION

Dr. **Barton**. Thank you, Senator.

I think it is important in this time and history when there is a $10 billion increase in medicaid and medicare, an increase which exceeds the entire NIH and Public Health Service budget, to recognize that all Americans are not equal.

It is wonderful that we were founded on a philosophy that we are one Nation under God, indivisible, with liberty and justice for all, but freedom and justice have not been one unitary concept.

We have been free, but unfortunately our freedom has led us to self-indulgence and neglect of those most in need.

One particular group of Americans that is in great need is rural Americans; 40 percent of America's population live in rural areas, and 56 percent of rural black families are below the poverty level.

Poor families have a better than 1-in-4 chance of living in inadequate housing. Rural areas have 58 percent fewer physicians, 38 percent fewer dentists, and 29 percent fewer nurses on a per capita basis than urban areas.

Over 2 million rural Americans do not have running water in their homes, and over 4 million rural Americans have inadequate or no sewage disposal systems at all.

Today, I would like to comment on the role of the Commission for Responsible Health Policy. The Commission for Responsible Health Policy endorsed its mission statement for the Task Force for Preventive and Community Health, and this mission was to develop recommendations and a strategy for meeting the Nation's needs for preventive and community health programs through private and public initiatives.

The Commission's cosponsorship of this hearing with the Senate Committee on Labor and Human Resources is the first of many important steps to fulfill this important undertaking.

As has been mentioned by the witnesses today, we need to have an increased role of responsibility by the private sector, and I commend all of the commissioners for their dedication and commitment to making a major improvement in the health of Americans.

One of my people that I just hold in highest regard is Robert Schuller of Garden Grove, Calif. He talks about "possibility thinking," and I think that is what we need in our commitment to change in America and to move toward health promotion and disease prevention.

The possibility thinker is the individual who, encountered with a mountain, persists until he climbs over, finds a pass around, digs a tunnel under, or persists until he turns his mountain into a goldmine.

W. Clement Stone indicates that the starting point of all achievement is definiteness of purpose with a positive mental attitude.

Based on that and based on my experience in seeing the problems of rural areas, I want to propose a major theme for the future in America, a starting point of definiteness of purpose.

The theme around which I would like to build my comments is that we need the same type of solution that farmers have found successful in rural areas: The concept of Americans working together forming health cooperatives and cooperative health programs similar to the rural electrification effort, similar to the efforts of groups of farmers banding together to build storage bins for their grain, build golf courses, build water supplies, through cooperative programs.

There are two general initiatives that are needed. The first is that there is a need for a major private, nongovernmental initiative to foster communication, cooperation, and the development of common goals built on the philosophy that made America great.

To that point, I would like to mention the program that was developed by the Parsons Institute under the direction of Dr. Bernie Parsons. He, in cooperation with his patients, developed a very innovative program of partnership between the health provider sector and the consumer. So, as one family, they have been able to move together, patient and doctor, community and health provider, to look at prevention rather than just treatment.

In a very small way, we have a model which has an unlimited potential when we look at what Dr. Parsons has done. If we expand this along the directions that Mr. Stanton, Mr. Johnson, and Dr. Bernstein have outlined today about the private and cooperative programs working in cooperation with the Government but with a major private initiative, I could envision corporations formed in a mastermind alliance in a national movement that has a greater awareness that our personal health gives us the freedom to serve, to care, and to share.

The second thing that is needed—and this is the second general recommendation that I make—is that there is a need for leadership in Government to take a closer look at the full potential of interdisciplinary, interagency, interdepartmental cooperation and liaison.

As an illustration of that, I would like to refer to the leadership of Dr. Michael Samuels who, under a tremendous problem facing America—the rural areas and small towns—was able to chair a coordinating council bringing together all of the agencies of Government—such people as Theresa Matthews representing the Department of Agriculture and all of the various agencies—to develop cooperative programs to cut down the waste and inefficiency that occur when we try to operate in isolation.

W. Clement Stone refers to the success system that never fails. It consists of three parts. The first is motivation, the second is know-how, and the third is knowledge.

Under motivation, I refer again to the notion that we are one Nation under God and that we have an opportunity for enhanced personal health which can lead us to expanded freedom for each individual to attain a higher level of caring, sharing, and serving.

Under this philosophy, we become more than animals that are responding to pleasure and responding to pain and are able to transcend our own personal goals to look at this structure of cooperative caring.

Second, we need know-how, know-how that allows us to get things done. It comes from experience and training. There is no generic funding for preventive medicine training in this country.

We need a greatly expanded effort to develop cooperative training programs rather than duplicating in every State, every region, and every city the capabilities. We need to have a shared cooperative or health cooperative program in the training area, drawing on such capabilities as the National Center for Health Education in California, so that we can take the best talents and the best minds and link them and link that talent into an extension service, similar to the U.S. Department of Agriculture's efforts, to help people develop these cooperative partnerships.

So then I am talking about training not for intellectual knowledge but for knowhow in bringing about some real changes in the countryside and in the cities of America.

Finally, we need knowledge. It is essential that we maintain and expand the basic clinical and biomedical research in disease prevention and health promotion.

There are three areas that are of great concern to me. I feel that there is a major initiative needed to give us greater knowledge of stress management and its relationship to mental and physical health.

Second, in both urban and rural areas there is a vital need for improved data collection and analysis to give us insight for goal setting, problem identification, and tracking progress.

The national surveys that are conducted are inadequate in providing us with area-specific and community-specific guidelines for goal achievement.

Finally, in the area of research industry and business must use evaluation tools to assess the effectiveness of health promotion strategies initiated for employees. Success stories backed by scientific evidence must be shared widely.

Here I would like to commend the work of the Medical Management Advisory Group, which is working with the Health American Style Institute, headed by Bernie Parsons, to share this whole concept of activating in small industry as well as large industry, and I think this is, again, where we are going to need greater cooperation in the whole area of taking the role of large industry and relating it and its capability to small industry which does not have the same capabilities and expertise in this prevention area.

Through groups such as the Medical Management Advisory Group, we need to spread this and develop a further scientific base for what we do so that we can share this with the rest of the world as we increase the health of Americans, decrease the waste that comes from lost workdays, and take those lost workdays and develop a vision and mission to help countries that are less fortunate than the United States.

Thank you.

[The prepared statement of Dr. Barton follows:]

TESTIMONY BEFORE THE U.S. SENATE
COMMITTEE ON LABOR & HUMAN RESOURCES
July 17, 1981

"Initiatives for a New Era of Health"
By Stephen Nye Barton, M.D., Ph.D.

Isn't it wonderful our country was founded on the philosophy that we are one nation under God, indivisible, yet with liberty and justice for all? In America we have freedom to pray, to seek our wisdom from a higher power, don't we? What gods are we servants to? Is our belief in the need for improving health grounded in a clear vision that we are one nation? Are all Americans together, urban and rural, rich and poor, black and white, a family that cares deeply if one of its children starves, a daughter is raped, a brother commits suicide? Can freedom be divorced from justice? Shouldn't the purpose of enhanced personal health be expanded freedom for each individual to attain a higher level of caring, sharing, and serving? It is my belief that the cornerstone of achievement in health promotion and disease prevention will be the gut level, burning desire, and persistent effort to raise up leaders who are committed to the philosophy that gave birth to our nation's greatness. Yet, good intentions are not enough. Without the knowledge we gain from research and the know-how that comes from experience or training, we are like a rocket ship to the moon that misses its target only to move aimlessly in outer space. We should take bold initiatives in a balanced perspective of philosophy and science.

Within this framework I share my views on rural health, health communications and possibilities for the future.

I. RURAL HEALTH

We are all aware of the problems of housing, economic development, and health care facing people in the small towns and rural roads of America. The mission of the American Rural Health Association is to provide a vehicle through which governments, organizations and individuals may communicate and cooperate with each other to improve the health of rural people. We have achieved our goal of creating the American Journal of Rural Health. We have also held annual scientific meetings on the delivery of human services to rural people.

But, how can the knowledge gained in urban research centers be made of value to the people who farm our land, mine our coal, raise our cattle? The University of Alabama in Birmingham Department of Preventive Medicine in collaboration with research centers throughout the United States has participated in the High Blood Pressure Detection and Follow-Up Program (HDFP), the National Exercise and Heart Disease Project (NEHDP), the Multiple Risk Factor Intervention Trial (MRFIT), and many other research programs sponsored by NIH. Some of these efforts have already been demonstrated to be effective in decreasing morbidity and mortality. Could these programs be modified for use in rural Alabama?

The American Rural Health Association in cooperation with the University of Alabama in Birmingham, the East Alabama Health Foundation, private physicians, the State Health Department, the federal Bureau of Community Health Services (BCHS) and other health resources, has initiated a research/service program for an entire rural county in east Alabama. The program is based on private and public sector cooperation. The goal is to modify the knowledge and know-how developed in an urban setting to reduce unnecessary mortality from heart attack, stroke, and lung disease. The objectives of this program have been: (1) to formalize collaboration among all pertinent groups, (2) to establish a baseline against which to measure progress, (3) to identify individuals at high risk, (4) to provide an intervention based on a uniform protocol emphasizing self responsibility in partnership with health education resources, and (5) to evaluate the impact of the intervention on the entire county. These same objectives with some modification reflect my opinion about how we should proceed nationally. The starting point is collaboration.

What can the knowledge gained by studying a rural Alabama county tell us about our national focus? In both urban and rural areas there is a need for better data to give an accurate picture of current health status and to monitor progress for specific initiatives. Results from the continuing national health surveys are based on samples too small to give us an adequate data base to be used in setting objectives and tracking progress in rural areas or for segments of many metropolitan areas.

Specifically, what is there of interest in the results from the baseline survey of over 1550 people in a rural Alabama county?

We found that on the average men and women, blacks and whites, gain more than one pound of body weight per year after the age of 21. Despite the bad effects on health of being overweight, isn't it wonderful that in a world where many are starving that rural Americans can gain 25 excess pounds by the age of 40. It is also fantastic that a health educator working with a small group of women helped them lose collectively the weight of an elephant?

In response to the question "have you ever smoked?", 68% of white males said yes. But isn't it great that, despite the millions of dollars spent on cigarette advertising, only 42% are current smokers? The average number of cigarettes smoked per day ranged from a low of 7.7 for black males to a high of 22.1 for white males. But can a person really stop smoking? The quitters reported being non-smokers on the average for about ten years. We will be utilizing some of the successful techniques developed by the Multiple Risk Factor Intervention Trial to help people stop smoking in rural Alabama.

Are other types of tobacco use common? To my surprise, although women reported smoking less than men, 24% of black women and 10% of white women reported the use of snuff.

Are the rural elderly happy? We asked the people age 65 and older to indicate how they generally felt. Response categories included very sad to very happy. Isn't is exciting that over 58% indicated they were either happy or very happy! But more than 3% were either sad or very sad. Can the elderly care for themselves? It is of note that over 13% of the elderly indicated they could not cut their own toe nails.

Is there a need to target programs for those at greatest risk? Our baseline survey revealed that only 7% of white females but 25% of black females had uncontrolled high blood pressure (using 90 Diastolic Blood pressure as criteria).

The importance of this information is that it was gathered in a county where over four hundred people endorsed the program before it was initiated. All of the physicians and key health institutions were behind it. A local nurse/health educator was identified to provide local full time leadership. Liason with the University Medical Center is maintained. The program has a baseline to measure progress. People at high risk are being identified. Smoking, high blood pressure, and weight control are initial targets but the framework of collaboration, built on concepts of personal responsibility, will permit program shifts to new areas. The program is made possible by Government and private cooperation. The major problems encountered were and are related to communication breakdown.

What is the major conclusion we can draw from this brief illustration? It is my view that the link between freedom and justice is the key! We as Americans must come to realize that it is in our personal interest to improve our mental and physicial health so that we can attain a higher level of caring, sharing, and serving. When our brother starves, we starve. The door to the future will open as we build a bridge between science and the philosophy that gave birth to this great nation. We need to identify and nurture leadership to build this bridge. But we must search for a structure of collective caring.

II. HEALTH COMMUNICATION

By the NATO definition, communication science deals with the laws, principles, and theories relating to the conveyance (transportation) of a message, both physicially (transmission) and psychologically (imparting of meaning). Goal setting is the cornerstone of purpose or action-directed communication. In this movement to improve health and prevent disease, there are seven dimensions of communication that the leaders must grasp.

1. Intrapersonal Communication

With the many advances that have emerged from the fields of biofeedback, psychiatry, and other areas of behavioral science, we have learned that the messages we communicate to ourselves are the keys to freeing us from our personal habits and restricted thinking. Robert Schuller of Garden Grove, California preaches on the need for "possibility thinking". He frequently points out that we are like elephants trained for the circus. In Thialand elephants are captured and chained to a gigantic Banyon tree. A baby elephant tugs with such force that one fears the tree will fall down. Yet, once the spirit of the elephant is broken, he can be tied with a small rope to a short stake and does not escape. In his mind he is still tied to the Banyon tree. The leadership needed must be open to change. It must be creative and courageous!

2. Interpersonal Communication

Of the volumes that have been written on interpersonal communication it is my observation that individuals and organizations fail to reach goals because of their lack of positive persistence. Shifting priorities may interrupt our ability to maintain a continuous message. Yet, to reach our goals we must persist. This is why the most important task before us is to raise up leaders that are committed to and can communicate the philosophy that gave birth to the greatness of this nation. Narrow self interest will lead to some temporary victories but our long term gains will be erased if we fail to adequately convey at the interpersonal level the belief that the purpose of enhanced personal health is expanded freedom for each individual to attain a higher level of caring, sharing, and serving.

3. Organizational Communication

Too many organizations are characterized by a group of individuals each with a separate goal and no sense of a group mission. In my experience working on problems related to rural health the single most important concept of organizational communication is a "mastermind" alliance. I think Napolean Hill coined this phrase. It refers to a common vision held by a network or group of people committed to a single goal. No major initiative will be launched until a mastermine alliance begins to work in a spirit of perfect harmony. Leadership is needed.

4. Mass Communication

Our world is becoming smaller through the technology of mass communication. We have only scratched the surface in using this invention of science to further the health of our people. We have used it very successfully to encourage promiscuity, cigarette smoking and alcoholism.

5. Information Systems

The development of mini and micro-computer technology is making it possible for information to be stored and retreived efficiently. This technology can be utilized to institute tracking and recall systems to remind patients to receive follow-up evaluations at regular intervals. The uses of the computer are endless. Frequently an insurance company may have information on the health risks of individuals but the client and the provider have no knowledge. The consumer, provider, and all information capabilities must be able to communicate. This requires an enhanced role for the private sector and initiatives by the government.

6. Intercultural Communication

Even within the United States there is a rich cultural diversity. The leadership of this health promotion movement must be sensitive to the communication barriers and possibilities that arise from this diversity.

7. Political Communication

There is inadequate communication and coordination across departments, agencies, bureaus. There is inadequate collaboration between local, state, regional, and federal units of government. There is a vital need for enhanced communications between the people of this great nation and policy makers. In my view the Rural Development Policy Act of 1980 (Public Law 96-355) contains strategies that could serve as a model for cooperative efforts built on communication between the private and public sectors.

The field of health communication has been approached in a haphazard fragmented way. Communication science deals with more than television. It is not just biofeedback. Communication is the bridge between science and the philosophy that gave birth to this great nation. The leaders we raise up to lead this movement must have know-how in all of the fundamental areas of communication.

What have we learned? We have learned that the knowledge we gain from basic research is essential but not sufficient. We must have the leadership to insure its distribution and application. This leadership must be given an opportunity to gain skills and experience across a broad range of communication sciences.

III. THE FUTURE

The Commission for Responsible Health Policy endorsed a mission statement February 25, 1981 for its Task Force for Preventive and Community Health. The mission was to develop recommendations and a strategy for meeting the nation's needs for preventive and community health programs through private and public initiatives. The Commission's co-sponsorship of this hearing with the Senate Committee on Labor and Human Resources has been the first in many steps needed for fulfilling this undertaking. Only by expanded communication and cooperation can the bridge between science and a philosophy of freedom and justice be built.

Before I discuss the topics of training, delivery, reimbursement, and research, I will summarize in a general way what I see in my vision for the future.

There is a need for a major private non governmental initiative to foster communication, cooperation, and the development of common goals built on the philosophy that made America great.

There is a need for leadership in government to take a closer look at the full potential of interdisciplinary, interagency, interdepartmental cooperation and liaison to insure maximum efficiency and enhancement of potential. Regulations and proceedures that are barriers to communication and cooperation must be removed.

There is a need for greater emphasis on the training and education of the professionals and future leaders of the disease prevention movement.

A major initiative is needed to give us greater knowledge of stress management and its relationship to mental and physical health.

In both urban and rural areas there is a vital need for improved data collection and analysis to give us insight for goal setting, problem identification, and tracking progress.

It is essential that we maintain and expand basic clinical and biomedical research in disease prevention and health promotion.

Industry and business must use evaluation tools to assess the effectiveness of health promotion strategies initiated for employees. Success stories backed by scientific evidence must be shared widely.

Based on my experience in rural health I personally feel that there is a need for the formation of innovative health cooperatives. It has worked to solve problems in farming. It can work for us.

Dr. SUNDWALL. Thank you, Dr. Barton.

I would like to just ask one question of our witnesses, if I could.

First of all, Senator Hatch asked this of Secretary Schweiker yesterday. He was concerned about coordinating efforts. We have had testimony here that there is inadequate effort in prevention, and yet we have heard considerable evidence that there are extraordinary worthwhile efforts going on at all levels of the Federal Government, State governments, and the private sector.

I would like to ask Dr. Stanton if he has suggestions on how we might clearly identify our existing resources to bring this all together.

Mr. STANTON. The Red Cross has already started down that road. When we announced our plans for the study that I reported here this morning, members of our organization met with representatives of the Health Council so that those people were acquainted with our plans and we could get information about what they were doing so that we did not duplicate each other's effort.

The important thing, of course, is not to step on each other's toes and to duplicate the work of others.

It seems to me that, as a takeoff point for what can be done once this hearing is closed, it might be worthwhile to convene an informal meeting of the interested parties for two purposes: One, to let them know what is going on, and the other is to try to coordinate the effort from this point forward. The last thing I would like to see is a superstructure that creates another bureaucracy, but there is something to be said for letting people know what we are doing.

One of the reasons why, at dinner the night before the hearing opened, I suggested that it might be desirable to videotape these proceedings was to edit a tape that could be circulated to interested groups across the country so that those groups would have the opportunity of seeing firsthand some of the things that were being discussed here today.

I am not encouraged by the fact that we are going to get much attention for this hearing based on news coverage, largely because there has been an absence of much reportorial evidence in the room here, and for that matter there has been very sparse attendance on the part of the committee itself.

We cannot let it fall at that point, it seems to me. I think we must take the highlights of the statements that have been made. I have been struck by the excellence of the papers that have been delivered here. These, I think, should be highlighted in the videotape and prints of those videotapes distributed to the field offices, if you will, of the interested groups.

The Red Cross facilities in this room will be made available to others. By facilities, I mean we can make duplicates of this tape, and others can edit the tapes to their own points of view, but the Red Cross itself will put this material to good use because it will reinforce in our organization and in the field the importance of what we are trying to do and show that there are other people working on this particular problem; we are not alone.

That is just the beginning, but I think you have to start with information, and it is unfortunate that too few people are going to know what we talked about here today, and it was for that reason that you had cameras and lights, and I hope we will be able to edit a half-hour or so that will encourage and stimulate people to go deeper in the direction of prevention and promotion.

Dr. **Sundwall.** I know the Senator appreciates this very fact that a volunteer agency, if you will, is helping with dissemination of information. That is something that is beyond the capability of the Senate committee alone, so that is helpful.

In the interest of time, I am going to submit questions to each of you to respond to in written form that we can introduce into the record.

Speaking for the Senators on the committee, many of whom, as you know, are involved in tax debates or in other committees—they simply could not be here, although several of them expressed high interest—we want to thank all of you for your presence and your innovative ideas regarding the health of the Nation. I think these are milestone hearings.

The individuals who were present have taught us primarily the fact that we need to take more responsibility for our own health and that the health industry should work in concert with the Federal Government to aid and support our citizens in this campaign for medical self-regulation.

Again, I thank you all for coming, and there will be press availability with several of the witnesses immediately after the hearing in this room.

[The following material was subsequently supplied for inclusion in the record:]

The University of Alabama in Birmingham
Office of the President

August 3, 1981

The Honorable Orrin G. Hatch, Chairman
Committee on Labor and Human Resources
4230 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Mr. Chairman:

On behalf of the University of Alabama in Birmingham, I am pleased to submit the attached testimony for the record of your Committee's hearings on preventive medicine and health promotion. In my testimony, I suggest that universities which are located in and serve our nation's urban centers have a potentially significant role to play in any national effort to achieve improvements in the health of Americans. I hope that these thoughts may be useful to you as the Committee on Labor and Human Resources considers this most important subject.

Sincerely,

S. Richardson Hill, Jr., M.D.
President

SRHjr/dbb

Enclosure

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THE POTENTIAL ROLE OF URBAN UNIVERSITIES IN DISEASE PREVENTION AND HEALTH PROTECTION

Testimony Submitted to the Committee on Labor and Human Resources,
United States Senate

by

S. Richardson Hill, Jr., M.D., President
The University of Alabama in Birmingham

Mr. Chairman, members of the Committee: In my view, any national effort to improve the health of Americans through disease prevention and health promotion should, as part of its overall strategy, consider employing the resources of our nation's urban universities. The institutions to which I refer have developed rather recently in our nation's history; they are a product of the urbanization of our population and a response to the requirement for more extensive higher education opportunities in a modern, technological society. They are to be distinguished from more traditional universities in that they are not merely located in an urban community but are part of that community. Their students typically are drawn in large measure from the urban area and the focus of their education, research and service activities is directed to the needs of the area. In the Education Amendments of 1980, the Congress recognized the potential of urban universities to address social and governmental problems by authorizing the Urban Grant University Program as a limited counterpart to the most successful land-grant legislation.

The University of Alabama in Birmingham(UAB) is an urban university and one which, I believe, is uniquely well-suited to serve as a model of how this kind of institution can contribute to the health of the citizens in its service area. It offers not only a full range of undergraduate and graduate programs, but is, at the same time, the state's principal academic medical center. The UAB Medical Center has six health professional schools - Medicine, Dentistry, Optometry, Public Health, Nursing and Community and Allied Health - and a number of interdisciplinary centers for the study and treatment of cancer, cardiovascular disease, hypertension and other health problems.

In its original position paper, the Surgeon General's Report of 1979 developed national goals for reducing death and disability. A later document, *Promoting Health/Preventing Disease: Objectives for the Nation(1980)*, identified fifteen priority areas essential to improving the health of the nation, including such actions as the reduction of high blood pressure, accidents and cigarette smoking. Over 500 individuals and organizations from both private and public sectors participated in specifying these health objectives. As a result, the objectives go far beyond the concerns of government *per se*; their achievement would require the active participation of a broad range of individuals and groups including employers, labor unions, local governments and others. It is my thesis here that, within our nation's urban centers, the urban universities have the potential not only to make a substantial direct contribution to improved health, but also to unify the efforts of diverse segments of the community into a coherent program of disease prevention and health protection.

Even the most casual observer should be aware that the problems experienced by American urban populations are multiple and reflect, in part, the social and economic vitality of its citizens, or the lack thereof. The major bases of health are education, employment, skill and income, all of which are areas in which UAB has strengthened its urban area. Therefore, in accomplishing the task of promoting citizens' health, I am confident that urban universities have a natural and important role to play. The systematic application of the talents that exist at an institution like UAB, with its various centers, institutes, and schools, can only make for more efficient use of existing community resources in health promotion activities. I would further suggest that the possibility of a limited federal involvement such as that contemplated in the Urban Grant University Program has the potential of making possible new and improved collaborative arrangements between the professionals concerned with health problems and these community resources. The result could be the kind of innovation and conceptual breakthroughs which I believe are necessary if truly significant advances in our citizens' health are to result from preventive and health promotion efforts.

More specifically, the urban universities could serve as an avenue through which locally defined health improvement measures could be identified and implemented. For example, although both high technology(e.g., open heart surgery) and low technology(e.g., health promotion programs) are necessary to good public health, the urban universities offer an additional means to focus community-oriented efforts toward low technology methods such as high blood pressure control that have already been found effective and efficient at the national level. Other areas in which community groups, local government and the urban university might collaborate include education-information measures, service measures, legislative and regulatory measures and economic measures. I would also note that this approach, which emphasizes local initiative, is consistent with the trend away from federally-mandated solutions to our Nation's problems.

In conclusion, I would urge the Committee to consider seriously the potential role of urban universities in disease prevention and health protection. Perhaps as an initial step, the federal government might consider some model or demonstration projects to test the extent of this potential. Certainly, we at UAB would be most happy to explore this matter further if this were considered advisable. In any event, I do appreciate this opportunity to present these views and commend the Committee on its interest and efforts in this most important area.

CHAPTER FOR BOOK

Evaluating the Gains for Business of Health Promotion in the Workplace

Marvin M. Kristein, Ph. D., S.U.N.Y., Stony Brook, N.Y. and N.H.L.B.I., OPPE, Bethesda, Md.

In the last decade, and especially in the last couple of years, there has been a rapid growth in business interest in and activities to promote the health of their employees. Both the number of companies involved and number and types of programs offered has grown from tens and hundreds to thousands. All types of companies, health insurance providers, benefits consultants, non-profit community health agencies, major voluntary disease combatting associations, and government agencies at all levels are involved in this expanding interest in health promotion. A recent news story noted that state troopers in Iowa included a request for 3 hours per week off for exercise in their contract demands.

This development is in response to the spread of information in the last 20 years ~~regarding~~ smoking and cancer, Framingham risk factors and heart disease, HDFP and blood pressure control. As the fortune cookie says, "good health is the greatest treasure" for the individual and the country. There also is a growing impression that worksite health promotion may pay, i.e. may provide a positive rate of return on investment and that this return can be measured. This paper addresses this issue of the financial and economic benefits to a business of engaging in health promotion activites for its employees.

On the basis of the author's previous articles and continuing study in this area, certain points stand out:

First, an overall caveat: there is no hard evidence that company A, with a health promotion program for its employees, has saved money as compared to (otherwise similar) company B, which has not engaged in such activities. There is no clear-cut example of a company saving money, in the long run or short run, in terms of medical care pending or insurance costs, workmens' compensation, disability retirement or any other possibly related category of spending. There is some evidence as to increased productivity and reduced absenteeisum. There are measurements showing that spending on health promotion activities does in fact promote the sense of well being and health of already not-ill participants and that this is reflected in self-reported improved quality of life indices.

Also, health promotion costs money. Many of the "benefit" outcomes involve measurements in the future, i.e. in many cases, the benefits will accrue in from three to 10 plus years. The spending is largely in the present. Positive (high) discount rates greatly reduct the present value of the benefits. Also, there is a resistence on the parts of both the private and public sectors to finance the studies needed to provide statistically significant "bottom-line" financial data over the relevant periods of time. At present, it appears unlikely that we will ever be able to prove clearly to any business that it will enjoy a net benefit on the profits line, in any given number of years, if it carries out certain health promotion and disease prevention activities for its employees. Also, as discussed futher below, the full benefits to a company any of such programs is a more complex measurement problem than expressed in the usual evaluation discussions.

Having stated this caveat, the remainder of this paper is devoted to indicating how and what aspects of employee health promotion activities may be evaluated so as to measure the potential projects to a company from such activities.

Before going on to other issues, it would be useful to define what we mean by health promotion programs. In this we follow the Surgeon General's Report on Health Promotion and Disease Prevention, Healthy People, D.H.E.W. (P.H.S.) Pub. no. 79-55071, 1979, the two volumes of which provide an excellent review of the subject up to that point in time. See also Breslow and Somers, A Lifetime Health Monitoring Program, N.Engl.J.Med.296:601-8,1977.

Ch. 6 is on Healthy Adults, i.e. those aged 25 to 64, which forms the vast majority of the members of our labor force. The major health problem for this group is heart attacks and strokes. Cardiovascular diseases not only are the number one cause of death for this age group, particularly after age 40, but also: the leading cause of permanent disability claims, leading single cause accounting for days of hospitalization, and principal cause of limited activity for adult Americans under 65. While 55% of stroke deaths occur in persons over 65, the promotion of cardiovascular health in those under 65 is the key to maintaining a healthy and independently functioning older population and reducing their medical care spending. The lessons of the Framingham study emphasize that there are 4 major risk factors (i.e. persons, presently without disease, who have these risk factors have a much greater probability of getting cardiovascular diseases at early ages than those who do not have these risk factors) smoking, high blood pressure (hypertension), high cholesterol levels (especially low-density lipoproteins), and diabetes. Secondary risk factors include: overweight, physical inactivity, driving personality patterns leading to unmanageable stress, and family history of early (aged <50) heart attacks and death. For those with more than one risk factor, the risk of early disease and death rises in a multiplicative fashion, e.g. Framingham tells us that a smoking, hypertensive 50 year old male will develop coronary heart disease 9.3 out of 100 over 6 years, as compared to 2.5 out of 100 for a 50 year old male without these risk factors; if he gives up smoking his risk drops to 6.2 out of 100; a 50 year old male who smokes, has high blood pressure (180 systolic), has high cholesterol levels (310) and is diabetic has a 26.2 out of 100 chance of developing CHD, which reduces to 18.5 if he gives up smoking.

Cancer is the second most important source of death for the adult population. There are a few forms of cancer that have shown a significant increased rates over time: respiratory, esophagus, and oral cancers. The factors are: 1) smoking, which combines with and multiplies the effects of occupational risk and pollution, and 2) Alcohol excessive consumption, which combines with smoking to multiply the effects of other carcinogens. Other cancers are probably affected by diet, radiation, sunlight overexposure, and heredity. Obviously persons with family histories of high cancer incidence, especially at early ages, would be wise to seek to eleminate as much as possible, other known risk factors.

Healthy People also emphasizes the great influence of alcohol abuse as a health problem for adults in causing other illnesses and violent deaths and the importance of mental illness in the national medical care bill. Chapter 10 of Healthy People discusses the 5 basic behaviors which we must seek to alter with in order to improve the health of the public: smoking, alcohol and drug use, nutrition, exercise and fitness, and management of stress. These are the targets of health promotion programs.

Second, Evaluation and Measurement of Benefits. Current evalution wisdom tend to view the benefits from company health promotion programs largely in terms of the potential gains from a single category: i.e. reduced medical care spending and consequent savings in health care insurance. In more sophisticated approaches this is expanded to include all related insurance items: life insurance, disability insurance, workmens' compensation and other accident and fire insurance. This is because concern with rising heatlh care spending was a major factor in stimulating interest in health promotion activities. It is probably true that self-care efforts and utilization review are probably more important and cost effective short-run actities to deal initially with a company's medical care spending growth than is health promotion.

A second evalution category usually added is absenteem, employee turnover, and related replacement and retraining costs. There is also a morale factor in this category that is sometimes overlooked.

A third evaluation catagory is the whole range of productivity, as affected by a reduction in the risk factors for chronic disease, especially improved wellness, and consequent improved morale.

A fourth evaluation category involves the competition for high quality sophisticated employees - especially in future tighter labor markets as the "baby boom" recedes.

A fifth evaluation factor is the relationship of health promotion to occupational safety and the reduction of labor-management conflict. Recent company and governmental problems in the areas of asbestos, cotton dust, coal dust, ets. emphasizes the potential importance of employee health promotion. The recent reduction in the bond rating of Johns Manville Corporation suggests the range of costs which may be impacted by potential occupational health liabilities.

A sixth evaluation factor involves the general morale promotion impact of health promotion activities - sometimes called the Hawthorne effect.

A seventh catagory involves what is sometimes called stress management but involves a broader category of "early warning" employee assistance and referral program. This can have positive impacts on the previous six categories, but involves separate benefits and costs over and above these six catagories. Good employee assistance programs pick up incipient alcohol abuse and family problems before they become disasters. Such programs may contribute greatly to overall employee morale.

An eighth factor involves general corporate image and its relationship to institutional advertising. A company that gives evidence of being progressive, forward looking, on the "crest of the wave" of the future enjoys a market advantage in all the markets it deals in.

A ninth category is usually mixed up with the second, third, and fourth catagories - but involves a separate aspect in productivity. It may contribute to increasing productivity before and without any gains in absenteeism and turnover or in reduction of risk factors or gains in new recruitment. Health promotion activities are a valuable benefit that costs the employer money. Employees recognize health promotion as such a benefit. In the recent past such benefits have been restricted to vice presidents, top and middle managers, etc. Extending health promotion benefits to company employees generally is likely to regarded as an increase both in after tax real income and in company valuation of and concern with the lives of their employees. Especially in these days of increasing health cand fitness awareness, even those employees who take minimal advantage of these benefits will tend to value them. Thus, health promotion benefits should contribute directly to improving employee morale and regard for their employer and, thereby, productivity.

Third, in evaluating the gains for business, or the economy, it is really is not possible to generalize about health promotion acitivities. We have various degrees of useful information on various aspects and types of programs. The bases of the data range from case studies to epidemiology. The apparent rate of return on investment differs for different aspects of health promotion. For example, We know a great deal about the economics of smoking and alcohol abuse; less about hypertension control, or early warning employee assistance programs; even less about cholesterol and probably least about the economics of exercise and fitness. As we will see below there can be little question about the cost-effectiveness of certain programs and much about others.

Fourth, Health promotion programs involve an investment in human capital, both directly in improving health and functioning and indirectly by education for a better life. Investment in human capital takes time and costs money. The last decade or two has seen much evidence of increasing deepening of human capital investment in terms of greater spending for the benefit of fewer and fewer children per family. Scholars in this area suggest that we are substituting quality for quantity in terms of investment in children and that this should, ultimately, increase the productivity of our economy. Health promotion for a company's employees is parallel to this human capital investment in children. It involves an interest in, a sense of reward for (in addition to the points made in the discussion of benefits above) contributing to a better future for "our" company and our country.

Fifth The range of benefits flowing from the non-health care areas from company health promotion activities far supass the health care benefits. Not only are there more benefits areas than lower health care insurance costs following from lower utilization due to lower morbidity and mortality, due to lower risk factors. But, there are benefits not directly related to the identification of risk factors and their successful reduction. Further, the medical costs of a company may run about 10% of payroll. The greatest reduction that may be anticipated would be 1/3 to 1/2 these costs. Actually we probably really mean reducing the rate of increase in these costs by 1/3 to 1/2. All the other benefits especially in morale, productivity, occupational health, and corporate image involve potentially much greater dollar amounts than any possible savings in health care costs.

Sixth Companies planning HP/DP programs should always remember that the benefits flow from c/e risk factor intervention and reduction and efficient delivery of high participation programs - not from screening for the identification of risk factors. Screening only serves to attract attention to the individuals and their risk factors that require reduction. However, attractive, efficient screening and risk factor and health hazards identification may be useful attention getting devices for certain populations. The point is that economy in health promotion especially requires minimizing the costs of activities that do not directly contribute to the reduction of major risk factors.

Evaluation

If a company is truly interested in evaluating its current pattern of medical care spending and the potentials of health promotion for saving money and adding to the "bottem line", this type of evaluation should be performed on an "individually tailored" basis. There are several well known specialists in performing such studies, including the author. For a useful discussion of some of these issues see the National Chamber Foundation's volumes, A National Health Care Strategy, 1978.

However, a company can take a simplified approach. For example, it can request its health insurer to provide general utilization by diagnosis data. While this may prove somewhat difficult to obtain from certain health insurers, it is basic to establishing a rational strategy for the place of health promotion in reducing a company's health care costs. If a company has a substantial proportion of its medical care spending related to the range of chronic diseases and accidents which are impacted by the type of health promotion programs discussed above, then it may indeed expect to cut some (at the some of the rate of increase) of its health care costs through health promotion. Many companies find that utilization reviews show that less than one-quarter of its employees are spending as much as three-quarters of the annual medical care dollars. These probably represent a special subgroup of the high risk factor population, who may have substantial hereditary dispositions to various illnesses. Health promotion programs may impact a substantial portion of this problem.

In the case of a large company with several thousand employees, that may be relatively representative of the U.S. population, one may assume that aggregate epidemilogy would apply. That is, that one would find a proportion of disease incidence and medical care spending basicallly similar to the national or regional patterns. For planning purposes, such companies may assume that the evaluation lessons based on national average data would apply to them. Such lessons indicate that company no-smoking and smoking cessation efforts work and may represent an excellent return on investment, even at minimal success levels. (In this regard, see the author's "How Much Can Business Expect to Earn From Smoking Cessation", talk prepared for the Interagency Council on Smoking and Health, 1980.).

Employee counseling, particularly well-run early detection and referral for alcohol abuse and similar problems and family difficulties, can have a high success rate. The U.S. Navy's alcohol program in Southern California has concluded that it is much cheaper to rehabilitate an experienced enlisted person with a drinking problem than to discharge that person and recruit and train a new person. This is based on a 60% success rate. A number of well-known private sector companies have had similar experience. In this regard see C.J. Schramm, Alcoholism and its treatment in Industry, Johns Hopkins U. Press, 1977. Also, some of the recent literature in preventive social work.

At this stage of our knowledge, particularly based on the lessons of the H.D.F.P. program (see J.A.M.A. Vol. 242, No. 23, pp. 2562-2577, Dec. 7, 1979; and N. Engl. J. Med. Jan. 31, 1980, pp. 293-294; and N. Engl. J. Med. May 22, 1980, pp. 1204-1205.), successful high blood pressure control appears to be important in reducing both morbidity and mortality for populations with diastolic pressures of 90 mm Hg plus. Whether such treatment depends entirely on drug protocols or efforts at behavior modification or both and the range of long run costs associated with such treatment modes are matters under continuing study. In his 1977 article in Preventive Medicine (Vol. 6, pp. 252-264), the author performed certain rough calculations indicating that hypertension control may be cost effective. (See also Kristein, Arnold and Wynder, Health Economics and Preventive Care, Science, 4 Feb.1977, pp. 457-462.) Based on a worksite cost of treatment study for N.H.L.B.I. in 1980 by Rucklin and Alderman, and average lifetime direct and indirect costs to the nation of an average hypertensive person, worksite hypertension control would appear to be generally cost effective. The work of Weinstein and Stason (Hypertension, Harvard U. Press, 1976) and Stokes and Carmichael (A Cost-Benefit Analysis of Model Hypertension Control, N.I.H., May, 1975) suggest that it may be difficult to quantify the net present value of hypertension control for all age-sex-color-blood pressure level groups.

At this stage of our epidemiological and clinical knowledge, it is simply not possible to meaningfully quantify the costs and benefits for the other aspects of health promotion. This is especially true for a popular area like fitness, which also defies meaningful definition as to content. Fitness programs may make people feel and work better; perhaps help reduce major risk factors like smoking, cholesterol, obesity, etc.; perhaps help people with a given level of risk factors to live longer and suffer less illness. Intelligent behavior modification programs to reduce major risk factors under careful controlled circumstances also include fitness aspects; there is evidence that these have improved the health and functioning of participants. However, overdone fitness efforts by individuals may lead to orthopedic problems and premature heart attacks and death.

The inability to really quantify costs and benefits much beyond the areas of smoking, alcohol abuse, and hypertension control does not mean that the other risk factors involved in unhealthy lifestyles are not real nor unimportant. As Dr. Lester Breslow has said, (J.A.M.A., Nov.9, 1979, pp.2093-2095), ..."We have been devoting relatively too much of our health service dollar to desperate measures that offer prolonged death - not life... We have tilted health science technology toward proliferating ... [some]products...that ...consum[e] hundreds of millions of medical care dollars but do...not have acceptable evidence of ... efficacy..." "...prevention does work. It is effective against [much of] heart disease, cancer, and stroke as well as the communicable diseases."

As the attached tables indicate, a very large fraction of unecessary losses in both lives and dollars is preventable. In many of these cases, cost effectiveness of prevention should not be an issue, since there is no effective treatment.

Quoting from: Disease Prevention & Health Promotion, DHEW (PHS) Publication No. 79-55 071 B.

C. SOME INDICATORS OF PROBLEM MAGNITUDE

The following five tables provide some indicators of the problems which pose the most significant threat to the population as a whole. They do not, of course, provide data on which risk factors associated with the problems are most subject to intervention, nor do they indicate which risk factors are important as a result of their cutting across several problem areas.

Table 1.—Ten Leading Causes of Death

[Total U.S. population aged 1+, 1975]

Cause	Number of deaths	Rate per 100,000	Percent of total
Heart disease	715,472	340.78	38.8
Cancer	365,549	174.11	19.8
Cerebrovascular disease	193,859	92.33	10.5
All other accidents	56,046	26.70	3.0
Influenza and pneumonia	53,456	25.46	2.9
Motor vehicle accidents	45,573	21.71	2.5
Diabetes	35,219	16.78	1.9
Cirrhosis of liver	31,581	15.04	1.7
Arteriosclerosis	28,882	13.76	1.6
Suicide	27,062	12.89	1.5

Table 2.—Years of Potential Life Lost

[Total U.S. population aged 1–74, 1975]

Cause	Total years lost	Percent total years	
Heart disease	4,471,254	23.8	
Cancer	3,841,801	20.5	
Motor vehicle accidents	1,838,602	9.8	
All other accidents	1,568,618	8.4	54.1
Cerebrovascular disease	869,352	4.6	
Suicide	824,038	4.4	
Homocide	823,257	4.4	
Cirrhosis of liver	583,727	3.1	75.9
Influenza and pneumonia	370,324	2.0	
Diabetes	268,726	1.4	

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Table 3.—Days of Care in Non-Federal Short-Stay Hospitals, 1974[1]

Cause	Days per 1,000	Cause	Days per 1,000
Cardiovascular disease	230.3	Respiratory disease	94.8
Digestive disease	154.9	Musculoskeletal disease	77.6
Accidents, poisonings, violence	138.8	Complications of pregnancy	71.4
Cancer	117.5	Nervous system disease	43.6
Genitourinary disease	103.1	Endocrine and metabolic disease	41.9

[1] Health, United States, 1976–77.

Table 4.—Direct Cost of Illness, 1972[1]

[Hospital, physicians, drugs, etc.]

Cause	Percent of total (all diseases)	Cause	Percent of total (all diseases)
Digestive disease	14.8	Accidents, poisonings, violence	6.8
Cardiovascular disease	14.5	Genitourinary disease	5.9
Mental disorders	9.3	Cancer	5.1
Nervous system disease	7.9	Musculoskeletal disease	4.8
Respiratory disease	7.9	Endocrine and metabolic disease	4.6

54.4

67.1

[1] Cooper and Rice DHEW Publication Number (SSA) 76-11703.

Table 5.—Total Cost of Illness, 1972[1]

[Medical care cost, loss to economy]

Cause	Percent of total (all diseases)	Cause	Percent of total (all diseases)
Cardiovascular disease	27.4	Mental disorder	7.9
Accidents, poisonings, violence	12.4	Nervous system disease	6.1
Digestive system	9.7	Musculoskeletal disease	5.1
Respiratory system	9.0	Genitourinary disease	3.6
Cancer	8.9	Infectious disease	1.8

[illegible]

75.4

[1] Cooper and Rice, DHEW Publication Number (SSA) 76-11703.

The changing priorities emerging from the different approaches to presenting the problem are obvious. As the focus shifts from absolute mortality to potential years of life lost, those which predominantly afflict the young become more important. Examples include motor vehicle accidents and homicide, with influenza, pneumonia and diabetes dropping down on the list. As the focus shifts from mortality to morbidity, using short-term hospital days as an indicator, diseases related to the digestive system, the genitourinary system, and pregnancy are more prominent. Looking further to the costs of illness, still different priorities surface, with mental diseases presenting significant problems. There is a clear need to determine ways to accommodate these many factors in setting priorities for national programs.

Table 1. Influence of preventable factors on mortality. Very high (VH), 30 percent; high, 20 to 30 percent; medium, 10 to 20 percent; low, 5 to 10 percent; very low, below 5 percent. [Data from (*1-3, 11, 13*)]

Factor	Cause of death					
	Major cardio-vascular-renal diseases	Malignant neoplasms	Accidents, motor vehicle and other	Respiratory diseases	Diabetes mellitus	Digestive
Smoking	VH	VH	L	VH	VL	L
Diet	VH	VH	VL	VL	VH	VH
Occupational hazards	VL	L	VH	H	VL	L
Alcohol abuse	L	L	VH	L	L	H
Drug abuse	VL	VL	H	VL	VL	L
Radiation hazards	VL	L	VL	VL	VL	VL
Air and water pollution	VL	VL	VL	L	VL	L
	Number of premature deaths					
In 1973	395,000	90,000	44,000	16,000	24,000	
In 2000*	595,000	127,000	71,000	33,000	30,000	

*If current trends remain unchanged.

Table 2. Mortality from the five major causes, 1973, and prevention potential calculated by comparing U.S. mortality rate with next-to-the-lowest (min) and lowest (max) rates among industrialized countries. [Data from (*2, 11*)]

Causes	Number of deaths	Percent of total mortality	Prevention potential (%)*	
			Min	Max
Major cardiovascular renal diseases	1,012,341	51	[illegible]	77
Malignant neoplasms	351,055	18	[illegible]	77
Accidents—motor vehicle and other	115,821	6	33	39
Diseases of the respiratory system	92,267	5	17	38
Diabetes mellitus	38,208	2	[illegible]	74
All other causes†	363,311	18		

*The minimum estimates have been used in all calculations of prevention effects in this article. †Individual diseases in this category accounted for less than 1.7 percent each of the deaths in 1973.

Tables from : G.B. Gori and B.J. Richter,""Macroeconomics of Disease Prevention in the United States", Science 200:1124, 1978.

Health Economics and Preventive Care

Marvin M. Kristein, Charles B. Arnold, Ernst L. Wynder

If one judges investments by the returns they bring, the American health care industry is becoming progressively less cost-effective (*1–3*). In this article we posit that the ever-increasing American expenditures on health care could be controlled by giving greater attention to the prevention of the major chronic diseases, that is, coronary heart disease, stroke, and certain cancers. We will review the available evidence to support this position and offer a framework for the development of future health care policies derived from that review.

There are two important features about American medical care that we wish to emphasize: (i) it is primarily a disease care rather than a health care system, and (ii) it lacks what economists call effective market controls. The system assures payment or reimbursement, through third-party (insurance) payers, for the medical care people receive in health crises—that is, when they are sent to the hospital. This arrangement results in eliminating effective consumer choice and supplier competition, usually present in the marketplace to restrain demand, output, and prices (*4*). It encourages ever-increasing demand for ever more expensive hospital services (*5*). Unless the economic incentives can be changed to encourage reduced utilization of medical services and increased attention to health conservation, there appears to be little hope of containing costs or of improving the well-being of our people.

Table 1 shows the increase of medical costs in the United States over the last 25 years. In 1950 we were spending 4.6 percent of the gross national product (GNP) on health; in 1975 we spent 8.3 percent on health. Except for a slight pause in 1973–74, the percentage of the GNP devoted to total health care has been rising steadily since 1929 (when it was 3.5 percent). The national hospital bill, which now accounts for 40 percent of total health expenditures, has been rising even more quickly than the total health care bill. Increased spending on physicians' services and drugs has also been rising, but at a slower rate than the total health care bill. The biggest rate of increase has been in nursing home care, reflecting the establishment of Medicare and Medicaid.

It has been suggested that whether we halved or doubled our total health care spending, longevity would not be changed significantly (*6*). Half of the increased spending since 1950 has gone to pay higher prices. The other half has gone largely for more hospital beds, more medical technology, more hospital admissions (up by about 50 percent since 1950), more hospital employees, and more patient-days in hospital. The available data do not indicate, however, that our health has improved significantly since 1950 (*7*).

The major causes of disability and mortality in our adult population—coronary heart disease, stroke, and cancer—have shown little net decline in incidence. The slight decline in heart disease mortality rates which began in 1968 may be due, at least in part, to changes in adult smoking habits and other primary prevention developments (*8*) rather than to increased spending on medical care. For example, when the children of participants in a long-term study of cardiovascular disease and risk factors (the Framingham study) were examined in 1972, the age-specific means of blood pressure, serum cholesterol, and cigarette smoking were found to be lower than those of the parent cohort in 1950, a difference that may have resulted from increased awareness of health and consequent primary prevention (*9*). Average cancer incidence has remained relatively static, except for declines in stomach cancer, which appear to be related to nutritional factors. Cancer survival rates have changed very little since 1950, and for lung cancer not at all (*10*). Injuries from automobile crashes and other accidents, which are the third major cause of death (*11*) and rank second in total economic cost because of their prevalence among young adults (*12*), have gone down by about 20 percent since 1973 because of the preventive effects of lower speed limits and higher gasoline prices. Since 1970, infant and maternal mortality rates have sharply declined in New York State, reflecting the legalization of abortion, declining birth rates, availability of prenatal care, and increased family planning—all aspects of preventive medicine.

A Sickness System

Approximately 90 percent of our population have some type of insurance covering hospital care, and almost as many have coverage for physicians' services performed in hospital. Relatively few people, however, are able to obtain insurance that pays for a substantial amount of preventive or ambulatory care—in other words, that rewards the physicians for keeping patients out of the hospital. Most medical insurance policies will pay 80 percent of all medical expenses over a certain minimum but do not cover periodic preventive services not related to a specific diagnosis or medical complaint. Given this unidimensional financial incentive structure, it would be surprising were there not abuses of the system in the form of excessive surgery and unnecessary hospitalizations (*13*). In Abelson's words (*6*), "When the major fraction of medical costs is borne by a third party, demand for care is practically infinite." Or as Mechanic has put it (*14*):

> Since . . . health insurance ordinarily includes few incentives for either the consumer or the physician to economize on the use of health resources, its effect is to substantially increase consumption and the overall price of medical care. The rise in price is not directly experienced by many consumers, and thus the real cost of the existing system is not clearly appreciated. The incentive for the physician under such policies is to provide a maximum level of services, regardless of their value, and the pattern of insurance facilitates his ability to generate demand without a consumer backlash.

There is ample evidence pointing to the overuse of our medical care system (*15–17*). A recent congressional study (*15*), extrapolating from small-sample data, concluded that 2.4 million unnecessary surgical procedures were performed

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in 1974 at a national cost of $4 billion (of which Medicare and Medicaid paid over $1 billion), and that these resulted in 11,900 unnecessary deaths. There has been criticism (*18*) of this congressional document and the extensive reporting of its results by the *New York Times*. It is likely that follow-up studies correcting for area differences, biases of selection, errors of projection from small numbers, and so on will yield significantly lower figures. But even if the new figures turn out to be only one-fourth or one-tenth of the congressional projections, there is no question that there is a substantial amount of unnecessary surgery, hospitalization, and waste of health care dollars in the United States.

The U.S. rate of elective surgery is one of the highest in the world. We have twice as many surgeons and twice as many operations in proportion to population as has Great Britain; in England, the hysterectomy rate is 40 percent that of the United States (*19*). The congressional committee report based its extrapolations largely on a study by McCarthy and Widner (*20*) of 1350 union members in New York City who had sought second opinions on recommended surgery. The consultant physicians had advised against the surgery in 16 percent of these cases. Two percent had had the surgery shortly despite the dissenting opinion; 3 percent had had it later because their symptoms persisted; and 11 percent had not yet found it necessary to resort to surgery 1 to 4 years after the second opinion was given. Whether or not the McCarthy-Widner data can properly be extrapolated to the nation (*21*), the American College of Surgeons supports the obtaining of second opinions as good surgical practice. A number of second-opinion programs are already in operation under the sponsorship of Blue Cross–Blue Shield and other insurers and unions.

There are other studies indicating that excessive surgery is stimulated not only by a high ratio of surgeons in a population but also by our payment system. A study of 8000 Medicaid families found that the rates of surgical admissions and general hospital use were approximately twice as high for persons under fee-for-service arrangements as for those under group practice plans of the Health Maintenance Organization (*22*). The probability of tonsillectomies in the families of U.S. government employees varied from 41 percent for Blue Cross–Blue Shield subscribers to 10 percent for subscribers to prepaid group practice plans (*23*).

There are similar studies of rates of hospitalization. In 1971 the U.S. Civil Service Commission reported that among employees in group practice plans under the Federal Employees Health Benefits Program hospitalization rates were 40 percent of the rates of those enrolled in the nationwide indemnity plan provided by Aetna and 46 percent of the rates of those enrolled under Blue Cross–Blue Shield (*24*). Another study showed that members of prepaid medical plans were hospitalized one-third as frequently as members of a comparable group in a traditional disease-care reimbursement system, and had lower rates of absenteeism (*25*).

Hughes of Mt. Sinai School of Medicine in New York City, Crile of the Cleveland Clinic, Zuidema of Johns Hopkins, and Stahl of New York University School of Medicine also offered evidence to the congressional committee (*15*, p. 12) on the fee-for-service incentive in excessive surgery and on the usefulness of second opinions and prepaid group practice to reduce the incentive. Hughes estimated that 20 to 24 percent of current surgical procedures could be safely performed on an outpatient basis, with substantial savings under a proper incentive system. He said:

> In fee-for-service settings . . . hospitals can receive no compensation for unfilled beds and unused operating rooms; and patients may receive little, if any, insurance reimbursement for elective surgical work performed in a doctor's office. The pressures from both directions may work towards the hospitalization of patients for minor surgical problems.

Table 1. Health care expenditures in the United States and their relation to the gross national product, 1950, 1965, and 1975. Data from (*52*, *53*).

Item	Expenditures					
	In billions of dollars			In percentage of gross national product		
	1950	1965	1975	1950	1965	1975
Gross national product	$263.4	$655.6	$1424.0			
Total health care expenditures	12.0	38.9	118.5	4.6	5.9	8.3
Hospitals	3.7	13.2	46.6	1.4	2.0	3.3
Physicians	2.7	8.4	22.1	1.0	1.3	1.6
Drugs	1.6	4.6	10.6	0.6	0.7	0.7
Dentists	0.9	2.7	7.5	0.3	0.4	0.5
Nursing homes	0.2	1.3	9.0	0.1	0.2	0.6
Other*	2.9	8.7	22.8	1.1	1.3	1.6
Funded by government	3.1	9.5	49.9	1.2	1.4	3.5
Funded by private insurance†	1.3	9.6	31.7	0.5	1.5	2.2

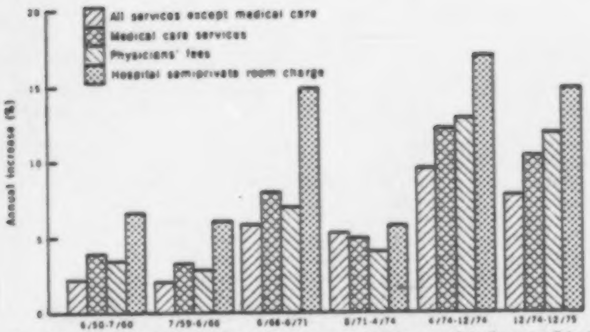
*Includes public health and research. †Benefit payments made by all private insurance organizations, including Blue Cross and Blue Shield.

Table 2. Sources of payments for personal health care services in the United States, 1950, 1965, and 1974. Data from (*52*).

Source	Payments					
	In billions of dollars			In percentage of total personal health care expenditures		
	1950	1965	1974	1950	1965	1974
Government	2.1	7.0	34.0	20.2	20.9	37.7
Private insurance	1.2	9.0	24.4	11.5	26.9	27.0
Consumers	7.1	17.6	32.0	68.3	52.5	35.4

Economy and Preventive Care

Since 1950 government spending on medical care has increased at almost twice the rate of total health care spending (Table 1). The government now pays over 42 percent of the total medical care bill, including 53 percent of the hospital bill. Private health insurance spending in this period has risen at four times the rate of increase of total health care spending and paid 35 percent of our national hospital bill in 1975. A company may spend $800 to $1000 per annum per employee for a reasonably generous health insurance plan for employees and their families, a sum equal to 8 or 10 percent of many payrolls. Only a third of personal health care expenditures are now paid for directly out of the consumer's pocket (Table 2). As may be seen in Figs. 1 and 2, the expansion of governmental fiscal involvement (through Medicare and Medicaid) in a system which emphasizes sick care has



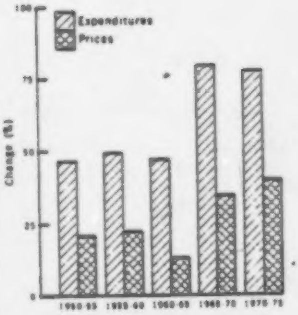


Fig. 1 (left). Mean annual rates of price increases in selected components of the Consumer Price Index (*54*). The major items in the "all services" index here are dry cleaning, domestic services, automobile repairs, recreation services, and personal care services. The index of medical care services combines physicians' fees and hospital room charges. Medicare was instituted in 1966. Price controls were in effect from August 1971 to April 1974, and included hospital charges. Fig. 2 (right). Changes in total expenditures on personal health care and in the medical care component of the Consumer Price Index, for 5-year periods. Based on data in (*52*).

stimulated the demand for these services and is one of the main causes of the great rise in medical care costs and expenditure in the last decade (*26*). These facts need to be borne in mind when considering the economic efficacy of any national health insurance proposals which would operate within the current American medical care system. Experience with Medicare and Medicaid strongly suggests that a move to national medical insurance (other than insurance for catastrophic illness) without substantial changes in controls of the medical care delivery system may prove economically disastrous (*27*). One can readily predict ever-rising costs (*3*, p. 7; *28*, p. 138) and higher taxes.

Ten years ago medical care spending, at 5.9 percent of the GNP, was a relatively small factor in the economy. In 1976, at over 8.3 percent of the GNP and rising, it supports the second largest industry in the nation. Further, it adds to the consumer cost of nearly all American goods and services, making them less available to the poor and less competitive in the world market. As a consequence, nationally, we face curtailment of other basic services and goals in order to pay for a medical care system which does not commensurately improve our health.

Preventive care offers a workable means of resolving this difficulty (*29*, *30*). For example, in a recent screening of 1 million people the Community Hypertension Evaluation Clinic found 21 percent to have high blood pressure (diastolic of 95 mm-Hg) (*31*, *32*). Only 45 percent of these were receiving adequate treatment. The total annual direct and indirect cost of hypertension to the country is estimated at $16 billion. Expected annual savings from successfully treating all hypertensives would be 50 percent of this sum, or $8 billion (*33*). Annual per patient cost of treatment of high blood pressure has recently been estimated at $100 (*34*) to $200 (*35*) (the figure depending on degree of use of professional health personnel other than physicians). It has also been estimated that there are 25 million hypertensives in the United States. A national program to find and treat all of them would cost at most $5 billion; the least favorable benefit-cost ratio would be 1.6 : 1. The national net benefit in better health, reduced premature mortality, and higher productivity would be at least $3 billion a year (*35*, *36*).

Thus it would be in the public interest to have an expanded national program of hypertension control, one designed to identify hypertensive persons and provide effective medical follow-up to assure continuing proper control of blood pressure. Logically, the treatment phase should be incorporated within the present medical care system. Pilot efforts in New York City and Milwaukee have demonstrated workable and effective hypertension control programs (*34*). The efficient and effective use of allied health professionals in such programs also has been demonstrated (*34*).

A more comprehensive health policy structure is needed which can guide the American health industry in new directions, particularly toward services to preventive care. In recent legislation, efforts have been made to move in this direction, for example, the development of 200 local health systems agencies (HSA's) around the country, establishing medical peer review, regulating occupational safety, and encouraging health maintenance organizations (HMO's). These may help to restrain future increases in medical care spending and to prevent unnecessary duplication. However, as mandated by law, their effectiveness lies primarily in restraining present practices rather than in encouraging preventive health care. The efforts to develop HMO's and effective arrangements for prepaid medical care delivery have not as yet attracted a significant number of providers and customers (*37*).

Without more meaningful efforts in preventive medicine, governmental systems of restraint may only lead to poorer health care on the average and newer and more sophisticated abuses of the system. The National Consumer Health Information–Health Promotion Act provides authority for new federal actions in prevention, but it appears too diffuse in its objectives to be effective. Further, it appears much underfunded for fiscal 1977.

Primary Prevention

Most major chronic illnesses in America have environmental and behavioral components which play important parts in their etiology. For that reason, the environment or specific products must be modified (managerial prevention) to protect susceptible individuals. At the same time, individuals must be taught to protect themselves (personal prevention). Instruction in personal prevention may be directed at children or at adults. To be effective, these efforts must be more than didactic exercises. In our experience, high-risk individuals must first become known to themselves and then must engage in behavior change programs. A brief, focused medical examination, including the taking of a short medical history, can initiate this process. For children, the American Health Foundation has developed a new school program, "Know Your Body" (KYB), which is designed to (i) promote a diet low in cholesterol, in fat, and in total calories, and otherwise nutritionally balanced; (ii) eliminate cigarette smoking; (iii) control blood pressure; and (iv) enhance physical fitness.

A 5-year (1975–80) KYB program among 2500 school children aged 10 to 12 years is now in progress. It includes annual determination of blood pressure, serum cholesterol, height, weight, hematocrit, and random blood glucose; a physical fitness test; a test of health knowledge; and a survey of such habits as smoking and alcohol consumption. After completion of the tests, the children receive a "health passport" in which to record their test results. Some of the results resemble those of other studies (*38*); we have found cigarette smoking (daily) in 10 percent and high blood cholesterol (over 180 mg per 100 ml of serum) in 18 percent of these children. The next step in this program is preventive intervention through which risk factors can be controlled or reduced. Students, teachers, and parents participate in this structured program (formal printed guidelines on how to reduce risk factors have been prepared for teachers, for example). The educational experience is designed to develop a greater appreciation of healthful life-styles. If reduction in risk factors can be demonstrated, efforts such as KYB may become an integral part of every school system in the United States.

For adults, the early identification of those who are at high risk of chronic disease should be a major objective of preventive medicine. Such individuals should be given every opportunity to participate in special programs of nutrition control, smoking cessation, and hypertension control. Through concentration of our preventive efforts on high-risk persons our current knowledge of disease prevention can be most effectively utilized.

We are currently testing a health maintenance service (HMS), a partly federally sponsored program in which sizable adult populations are given brief tests for chronic disease risk factors at their places of work. This is a low-cost procedure utilizing mainly health workers other than physicians. We have found that over 50 percent of the persons tested have one or more of the risk factors—cigarette smoking (ten or more daily), high blood cholesterol (over 220 mg per 100 ml of serum), obesity, or hypertension (over 95 mm-Hg diastolic, 160 mm-Hg systolic). We have also initiated intervention programs designed to bring cost-effective preventive medical procedures to places of employment. It has been shown that through individual counseling and group therapy some 25 percent, and when recidivism is dealt with 50 percent, of heavy cigarette smokers have been able to stop smoking for 1 year. Also, weight control (for 1 year) has been achieved for obese persons (*39*). The cost of the smoking cessation intervention has been about $80 a person.

We have calculated cost-benefit ratios of almost 2 to 1 for smoking cessation programs and 2 to 1 for alcohol abuse programs, and have estimated highly favorable benefit-cost ratios for the installation of seat belts to prevent auto crash injury even when rates of use are as low as 33 percent. We know that a significant proportion of heavy smokers and drinkers can be assisted to stop their self-destructive and socially costly habits. Given the current state of our knowledge in disease epidemiology, control of these risk factors should lead to a continuing reduction in coronary heart disease and cancer (*40*).

Managerial Preventive Medicine

Managerial preventive medicine pertains to health risks that can be controlled through environmental management rather than by personal behavior. Malaria in the United States was prevented primarily by clearing swamps and wetlands near population centers, thereby controlling the mosquito carrier; rickets by fortifying our milk; goiter by adding iodine to salt; tooth decay by fluoridating drinking water.

An important example of current managerial preventive medicine is the development of less harmful cigarettes. During the past 25 years the tar and nicotine content of cigarettes has been reduced by over 50 percent (*41*). The trend in bioassays of tars over the years appears to indicate that on a gram-to-gram basis present-day tars are less active than those of 25 years ago (*42*). Most significantly, this change in cigarette smoke condensate already appears to be reflected in a decrease in incidence of lung cancer in younger smokers and may be responsible for the observed decline in the rate of heart attacks (*43*). One can safely predict that as fewer harmful cigarettes are smoked, and as cigarettes become less and less harmful, the risk of tobacco-related diseases will significantly decline over the next 25 years. For the present, however, antismoking programs and education in stopping smoking will continue to be a necessity. Similarly, the food industry needs to be encouraged to reduce the content of saturated fat and cholesterol in the American diet, an area of managerial preventive medicine where much progress can still be made.

There are also legal measures that can reduce preventable illness. Objectives of such legislation could include reducing the saturated fat and cholesterol content of food and increasing essential amino acid content; reducing the risk of injury in auto crash through surveillance of alcohol consumption, improved passenger restraints, and lower speed limits; and ridding the environment, particularly the work environment, of toxic substances. In nutrition, for example, there is ample precedent for food regulation in current Food and Drug Administration legislation.

Secondary Prevention

Another element of prevention is early detection of disease. This differs from risk-factor detection in that, rather than identifying a probability of illness ("risk"), one is looking for the earliest possible evidence of illness. Examples of methods include the Papanicolaou test for cancer of the cervix; breast palpation, thermography, and mammography for breast cancer; blood pressure measurement for hypertension; eye tonometry for glaucoma; and spirometry for emphysema. Hundreds and sometimes thousands of individuals must be screened in order to find one case of the disease in question. The individuals identified must voluntarily comply with a specific clinical regimen. The costs of such medical screening per treated case are often substantial. Except for hypertension screening and control, where the cost-effectiveness has been well established, screening procedures for early disease detection must be studied in detail to determine their cost-effectiveness for various age levels, population groups, and other risk-determining characteristics (*44*). The probable (differential) success of intervention therapy for a given condition should also guide our decisions about undertaking secondary prevention procedures. Secondary prevention methods should be employed when the screening and early treatment costs are low, the effectiveness of early therapy high, and the cost of late treatment sizable.

Administrative Prevention

In this short examination we cannot discuss the relative cost-effectiveness and importance of what might be called "administrative prevention," that is, cost-effective management practices in health care. Examples of such practices include the use of allied (nonphysician) health professionals (*45*), use of ambulatory rather than inpatient medical and surgical services, and peer review of elective surgery and medical care. These obviously important issues require a separate discussion. One would logically expect that, if used to the full, administrative prevention would result in less-expensive, better, and better-distributed medical care. The incorporation of preventive care into a revised general system of health care would undoubtedly be accompanied by various new administrative practices.

Cost-Effectiveness of Life-Style

A preliminary result of our studies indicates that generally prevention can be cost-effective, particularly managerial primary prevention, individual primary prevention (healthful life-style) (*46*), and selective screening and appropriate early therapy (*44*). We are involved in further detailed studies to clarify areas of cost-effective prevention in order to guide policy-makers toward efficient choices.

It can be said unequivocally that a significant reduction in sedentary living and overnutrition, alcoholism, hypertension, and excessive cigarette smoking would save more lives in the age range 40 to 64 than the best current medical practice. In addition, it would add to national productivity by reducing absenteeism and illness (*31, 47*). The significantly lower incidence of cancer of most sites among Mormons and Seventh-Day Adventists, and their lower mortality rates, are evidence of the preventive effects of healthful life-styles, that is, of abstention from tobacco and alcohol and maintenance of a nutritious diet commensurate with the degree of physical activity required by the individual's way of life.

The average total mortality rate in 1970–72 for Mormon men over 35 years of age in California was between 46 and 69 percent of the U.S. rate for all men over 35. The Mormon cancer death rate for 1970–72 in the age group 45 to 64 was 62 percent of that of U.S. whites (and included lower rates for certain cancer sites not associated with smoking and drinking). Similar findings were reported for Mormons compared with non-Mormons in Utah. (Per capita cigarette and alcohol consumption in Utah was 50 percent of the U.S. figures in 1970.) An 8-year study of Seventh-Day Adventists living in California found their cancer mortality (standardized for age and sex) to range from 50 to 65 percent of that of the general California population (*48*). The rate of coronary artery disease and myocardial infarction has been 50 percent lower among male Seventh-Day Adventists than among white American males generally (*49*). The life-style of Mormons and Seventh-Day Adventists is reflected in their lower medical care expenditures. For example, total federal and state personal health care expenditure per capita (largely Medicaid and Medicare, but also including contributions of the Veterans Administration, the Department of Defense, Workmen's Compensation, and so on) in 1969 in Utah was significantly below what would be expected for a state of its per capita personal income and its welfare load (*50*).

Time for a Change

In view of the epidemiologic research indicating that the incidence of cardiovascular disease, many cancers, and other chronic diseases may be significantly reduced through preventive care, the potential social and economic benefits to be realized through preventive medicine seem staggering. While there is much yet to learn about preventive intervention, putting into effect what is currently known would provide substantial social benefits.

Economic incentives are missing, however, to establish these improvements. Our present health insurance system provides little financial inducement for doing so. The public, physicians, the drug industry, and the hospitals do not focus their attention on any of these preventive procedures (*51*). It is important to note that an increased emphasis on preventive health care does not imply questioning the worth of continued improvements in clinical medicine and fundamental research. The problem is one of priorities and husbanding scarce resources. Cost-effective selective screening and risk-factor reduction can lower morbidity and mortality rates and medical costs and lead to an increase in total real national output. Early identification and preventive intervention should also mean more resources for the medical care industry to focus on unavoidable illness, without further large increases in the proportion of the GNP going to medical care.

A two-pronged approach is needed: one related to cost control and disease care services, the other instituting a cost-effective incentive program of preventive medicine on a national scale.

The needed structural changes are eloquently described in *The Forward Plan for Health* (*30*) under the heading "Theme: Prevention":

> . . . further expansion in the nation's health system is likely to produce only marginal increases in the overall health status of the American people . . . the greatest benefits are likely to accrue from efforts to improve the health habits of all Americans and the environment in which they live and work.

The report then outlines the improvements needed in health education, nutrition, child health, and environmental health; it also briefly discusses smoking, mental illness, alcohol and drug abuse, infectious diseases, dental disease, and inadequate physical activity.

What is lacking in this presentation, or so it seems to us, are provisions for meaningful incentives and specifically funded programs to assure that the proposals will be executed. These and related preventive proposals require implementation. In this article we have outlined those preventive programs which we believe are ripe for implementing now.

If a national, comprehensive preventive program is to be implemented and succeed, it must have the enthusiastic support of the medical profession, to which the public has entrusted its well-being; of the government, which alone has the resources to create a national approach and to provide the necessary incentives; of the medical insurance industry, which must cooperate with the government in this effort; and of the individual, who must accept a greater responsibility for his or her own well-being and exert the self-discipline required in modifying life-style habits. With such a partnership, a true health care system can be created for this generation and those to follow.

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Commentary

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Suppose We Died Young, Late in Life . . . ?

A DISTINGUISHED physician recently expressed concern about the long terminal illness of one of his parents. What, our colleague queried, would happen to society if medical advances led most of us to such a demise? Aside from emotional problems affecting the family, would not such a state of sick old people undo the fiscal structure of our health care system? Yes, but is it really necessary that we must end our days old *and* sick if we alter our current health care system?

This question raises one of the most important issues about the future of our society—an issue of *human* capital and resources as vital and pressing as the problems of energy and economic capital and resources. The medical profession and society's planners for the future must responsibly face the issues raised by this question, and the purpose of this note is to open such a discussion.

Let us put the issues involved in perspective. The older population (older than 45 years) is growing; the population younger than 21 years is declining. The current median age of the population will most likely rise from about 29 to 37 years during the next 25 years.[1,2] The current fertility rate is about 1.8 per woman and has been falling steadily for 20 years.[3] Most of medical care spending is accounted for by the older population (one third by those over 65 years and another one third by those from 45 to 64 years).[4] By the year 2000, the US population over 65 years will have grown by 40% and the 45- to 64-year-old age population will rise by 50%. This is a built-in "time bomb" for medical care spending because these age groups represent the rising burden of chronic disease, eg, heart disease, cancer, and stroke. The current cost to the United States of such diseases is approaching $50 billion (1976 dollars) in direct medical care spending, and probably two times that amount in indirect (lost income) costs of morbidity and premature mortality.[5] This says nothing of pain and suffering.

However, much of this spending on chronic disease is unnecessary. Nature did not intend us to grow old *and* ill; we were designed to die young, of old age, but free of disease. Epidemiologic evidence shows that we can prevent a substantial proportion of chronic diseases by improved life-style and preventive medicine.[6] Healthy older persons can continue physically and intellectually productive and active into their 80s. What would the consequences to society be, emphasizing the development of a *healthy* older population by preventing chronic diseases?

1. The size of the population older than 65 years would be increased, but probably by not much more than 10% of the amount of the current increase, and a great majority of the lives initially prolonged would be in the highly productive 50- and 60-year-old range.[1]

2. The spending on medical care would be greatly reduced. For example, if we began to work now on reducing preventable chronic disease, eg, lung cancer, cancer of the upper alimentary tract, chronic bronchitis, coronary heart disease, cirrhosis of the liver, and emphysema, we could be saving many billions of dollars per year in five to ten years.

3. Health care personnel now engaged predominantly in ever more expensive therapeutic care would be shifted to work in preventive care.

4. Surplus hospital facilities could be shifted to meet other social needs, including specialized housing and cultural centers.

5. Government savings on therapeutic care spending could be shifted to the support of the larger, retired population without increasing the burden on the working population, or to desired social projects, or to tax cuts.

6. A larger *healthy* older population would require us to offer a more diversified life-style to those older than 65 years than does the current compulsory retirement. This would mean all types of useful work for older persons who wished to work at jobs not necessarily competitive with job opportunities for the young. In fact, a properly run national full-employment program could provide opportunities for both young and old as well as many public service jobs, eg, care of the young and the disabled old, and expanded educational opportunities at all ages. Thus, a healthier older population, even if larger, could be a lesser burden on the economy even in the area of old age pensions.

It will be a principal function of medicine to keep people well and free of disease, a state that could best be reached through life-style medicine.[6] Such a state, on the basis of both human and financial terms, is the most cost-beneficial pathway for society to take. A society free of what we know to be avoidable illness and disability is a society that would put its funds to better use than fighting often hopeless battles against unnecessary illness. By placing an emphasis on preventive medicine, the medical professions could make such a society happen.

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HEALTH INSURANCE ASSOCIATION OF AMERICA

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August 5, 1981

Senator Orrin G. Hatch
Chairman, Labor and Human
Resources Committee
4230 Dirksen Senate Office
Building
Washington, D.C. 20510

Dear Senator Hatch:

We are very pleased to learn of your personal commitment to increasing public awareness of health promotion and disease prevention. You are to be commended for initiating hearings before your committee on this important subject.

You should know that the health insurance industry shares your commitment to preventive medicine and health education. The Health Insurance Association of America, whose member companies write approximately 80% of the health insurance written by commercial insurance companies in the United States, has for many years expressed its concern with the short-comings in our health care system including the neglected area of health education. Our member companies have an important stake in effective health education programs. They know that productive time and effort invested in this area can help ease the pressure on health care cost increases. More importantly it can enhance the well being of the American people.

In 1978, the Health Insurance Association of America and the American Council of Life Insurance created a joint Advisory Council on Education for Health. The Council, composed of 15 of the nation's authorities in health education and promotion, was established to offer guidance to the life and health insurance industries in identifying opportunities for providing health education and promotion to employees, policy-holders, and the public. The current Advisory Council Chairman, Robert L. Johnson, was an expert witness before your committee on this subject during your recent hearings.

In addition, HIAA has its own standing Health Education Committee responsible for developing industry policy and actions in this field. The joint ACLI/HIAA Advisory Council, together with the HIAA Health Education Committee, has spurred the implementation of a number of specific activities to increase the involvement of insurance companies in health education. You will be interested in a few noteworthly examples.

1) LIFECYCLE PREVENTIVE HEALTH SERVICES STUDY.

A three year, one million dollar project known as the "Lifecycle Preventive Health Services Study", has just been launched and is currently being funded by eighteen life and health insurance companies. The study will develop and test preventive health procedures that can be performed efficiently by physicians and other health personnel in their routine settings. This study has as its goals: (l) defining cost effective procedures, including health counselling; (b) promoting use of preventive health services among patients, physicians and other professionals, and most importantly; (c) introducing the concept in primary care settings as a covered health insurance benefit on an experimental basis.

2) CONFERENCE ON HEALTH EDUCATION AND PROMOTION.

In March 1980, HIAA and ACLI convened a conference for insurance company senior officers on health promotion strategies. The conference was designed to provide information on current programs and future directions in health education with a special emphasis on highlighting opportunities for action by member companies. It served to stimulate thinking within the industry on ways to encourage healthful lifestyles. A copy of the Conference Summary Report entitled, "Health, Education, and Promotion, Agenda for the Eighties," is attached.

3) WORKPLACE INCENTIVES TO END SMOKING.

To help discourage smoking, HIAA and ACLI are sponsoring a program under which major employers will be encouraged by their insurance carriers to explore incentives to reduce smoking by employees. A "Smoking Cessation" brochure will be distributed to HIAA and ACLI member companies for further dissemination to top executives of group policy-holders. The brochure will offer information on the impact of smoking on employee productivity, absenteeism, health risks, accidents, losses and insurance costs. It will also contain specific ways an employer may design incentives for employees to stop smoking.

4. OTHER HEALTH PROMOTION PROGRAMS FOR THE WORKPLACE.

Another initiative by the private health insurance business has been to encourage the nation's employers to expand health promotion programs on the worksite. Our expectation is that such efforts will improve health, reduce absenteeism among employees, increase productivity, and help contain health care cost.

As a major step in this direction, the HIAA asked a distinguished physician, Dr. Charles A. Berry, to study individual health risk factors and how these risks can be effectively reduced. Dr. Berry is the former chief medical director of the U.S. Space Program and president of the National Foundation for the Prevention of Disease, in Houston, Texas. I am pleased to enclose a copy of Dr. Berry's study, entitled, "Good Health for Employees and Reduced Health Care Costs for Industry", which is addressed to the American business community. We have also prepared a companion booklet for employees and their families, entitled, "Risks to Your Good Health and What You Can Do About Them". Both of these publications, along with other supportive materials, have been sent to all of our member companies. We are urging them to use these materials to spur development of wellness programs by their group health insurance clients. We hope that this effort will advance the wellness movement in the United States.

In addition to the initiatives of the Health and Life Insurance Associations, individual insurance companies have also increased their health education activities. Some of these activities include literature and audio visual programs, blood pressure screening, smoking cessation programs, discounted premiums for non-smokers, involvement in local "health fairs", safety education programs, support for cancer detection and educational seminars, and participation in national advertizing campaigns on health education promotion.

Mr. Chairman, the message we wish to convey is that there has been a growing awareness in our industry that insurance companies -- as employers and as insurers -- can and should actively promote well being through programs of health education. This philosophy is a part of our efforts to contain the economic and social costs of accidents and illness.

Sincerely yours,

Paul M. Hawkins

Paul M. Hawkins

Enclosures

STATEMENT

# of the

AMERICAN NURSES' ASSOCIATION

The provision of prevention and health promotion services as integral aspects of health care within the United States offers the potential for significantly improving the health and welfare of the American people. Throughout the history of the United States, major advances in decreasing morbidity and mortality have resulted from preventive as opposed to curative efforts. The 1979 Surgeon General's Report on Health Promotion and Disease Prevention, Healthy People, chronicled a century of gains in health due primarily to progress in the public health field, the cutting edge of health promotion and prevention services. Community health nurses have been highly instrumental in sustaining a preventive orientation within the existing health care system.

Although the desirability of keeping people well is widely accepted, the present health care system is not economically or operationally structured to effectively accomplish this goal. While Congressional priorities for health planning (P.L. 93-641) have shifted to include the development of programs for community health education, health maintenance organizations and expanded preventive service, financial resources have not been proportionately allocated for these activities. As an example, in 1977 expenditures for health care totaled $162.6 billion representing 8.8 percent of the gross national product. This resulted in health care costs of $737 per person in the United States. Of this amount, $721/capita was spent for the treatment of illness while only $16/capita was spent for prevention or health promotion services. It is difficult to maintain the health of the nation's population on 2 percent of health care expenditures. Such a pattern of health spending requires people to become ill before significant investment is made in their health. Recent evidence suggests that more productive use of health care dollars would result if the present health care system were restructured toward a balance between prevention/health promotion services and care in illness.

Major barriers to prevention and health promotion efforts include the following:

Limited basic and clinical investigations in the areas of prevention and health promotion

Inadequate insurance coverage to promote utilization of prevention and health promotion services

Underutilization of health care personnel prepared to provide prevention and health promotion services directly to consumers

Limited incentives to develop alternatives in health care delivery

Inadequate consumer education activities in the areas of prevention and health promotion

The following presents information relevant to each of these concerns and recommendations for action within the government and private sectors.

BASIC AND CLINICAL INVESTIGATIONS

The body of knowledge that undergirds clinical efforts in the areas of prevention and health promotion is limited. One reason such a knowledge gap exists is the low level of funding for research that is not disease oriented. All of the Institutes within the National Institutes of Health focus on a specific disease entity. While each Institute has a prevention emphasis relevant to the target disease, research focused on health promotion frequently does not focus on a particular disease or organ system. Research focused on sustaining or increasing the level of well-being of individuals of groups is both biomedical and behavioral.

Research in the areas of prevention and health promotion must focus on human behavior as well as physiological processes. Questions yet unanswered include:

> What health promoting behaviors have a definite impact on quality of life and longevity?
>
> What personal, familial, social and environmental factors affect health and well-being?
>
> What are effective means of altering health-related behaviors of individuals, families and the larger social collective?
>
> What physiological changes result from specific behaviors directed toward health promotion?

Within the federal government, a specific focus for funding extramural research in the area of health promotion should be established and funded at a level that will sustain viable research initiatives in this area. In addition, a coordinated intramural research program targeted on health promotion should be developed. A better balance must be achieved in federal funding for curative research and health promotive/preventive research efforts. It is only as knowledge becomes available that effective programs to enchance the health of the American people can be developed.

INSURANCE COVERAGE

The lack of prevention and health promotion services in many geographic areas hinges on the absence of coverage for such services by Medicare and private third party payers. Failure to cover services such as health education, nutrition counseling, stress management and biofeedback therapy, lifestyle modification counseling, physical fitness assessment and screening services for early detection of disease results in little incentive on the part of consumers to avail themselves of such services. It is only after individuals become ill that such services may be reimbursed by third party pay. When illness is present, expenditures are much greater than prior to illness with less real gains for the patient than might have been achieved before the onset of an actual illness episode.

More attention must be given to structuring insurance coverage programs that directly reimburse qualified health professionals for prevention and health promotion services provided to clients. The need for such services frequently occurs prior to contact with a physician for treatment of a specific illness episode. Referral to prevention and health promotion services subsequent to illness onset is an after-the-fact crisis oriented approach. The need for insurance coverage of prevention/promotion health services will become even more important as the size of the elderly population increases. The foundation for healthy and productive aging is laid during childhood, adolescent and young adult years. Failure to recognize this fact will continue to result in a treatment rather than preventive orientation in health services provided. Considerable economic advantages could result from decreasing the incidence of chronic illness or delaying the onset of chronic health problems in an aging population.

UNDERUTILIZATION OF HEALTH CARE PERSONNEL

The present health care system offers few access points to health services. The traditional point of entry for curative care, the physician, should be supplemented by other points of entry for prevention/health promotion servcies. Masters and doctorally prepared health personnel in nursing, psychology, social work, nutrition and exercise physiology are well-qualified to offer preventive/promotion care. Because the area of health promotion encompasses a variety of dimensions of the human life experience, an interdisciplinary approach is essential for the provision of quality services. Nurses prepared to deliver primary care are key health professionals in coordinating a critical mass of health personnel for the provision of prevention/health promotion services.

Services offered should include: health education; anticipatory guidance (e.g. parenthood, retirement); nutrition counseling, stress management; health assessment; risk appraisal and counseling; multiphasic screening programs for the early detection of illness and continuing health guidance and supervision.

In instances where the above designated services are currently provided, they are available primarily to low income groups or to clients who can afford to direct pay. Greater access to these services for all income groups would result from innovative insurance coverage programs.

ALTERNATIVES IN HEALTH CARE DELIVERY

Alternatives for the delivery of prevention/health promotion services should be developed and evaluated. School and work settings should be carefully considered as potential locations for such services because of their maximum accessibility to both children and adults. Full-time physicians would be not needed to administer the programs, instead, other health personnel well-qualified in the designated service areas could be utilized resulting in lower costs for health care delivery. Health Promotion Centers could be established adjacent to school and work settings. The Centers could be privately or federally funded taking the form of free-standing clinics reimbursable through third party pay or networks of services provided by several agencies but coordinated at a central location. These centers would be oriented toward health promotion and the prevention of illness rather than treatment and cure of disease. The complement of staff would recognize the different areas of expertise needed for the provision of such services as opposed to those of a curative nature. Consolidated individual/family charts would need to be maintained for use by all professionals providing services as well as liaison with curative services to allow a smooth transition between service areas. Continuity would be critical to high quality care and consumer satisfaction.

Alternative approaches to providing care should be evaluated in terms of their impact on health status. Measures of impact include: additional years of healthy survival and/or improvement in health without affecting longevity (e.g.decreased morbidity, increased quality of life). The bottom line in considering the effectiveness of prevention and health promotion efforts is what the public is willing to pay directly or indirectly for access to such services. When alternative modes of care become available, they must enter the quasi-free market place and compete for dollars now spent by government, third party payers and consumers on treatment (illness-oriented) services. Currently, there appears to be increasing interest among the public in diverting some of the monies spent on curative and supportive care to prevention and health promotion efforts.

CONSUMER EDUCATION ACTIVITIES

More attention needs to be given to productive use of communication media in order to assist consumers of health services in understanding factors that affect personal health, family health, community health as well as self-care appraoches to improve health status. Collaboration between government and the private sector in developing health-focused programming could be highly productive. The Stanford Three Community Study funded by the National Heart, Lung and Blood Institute provided evidence concerning the impact of health education on reduction of risk factors for coronary heart disease. Additional studies of community wide education programs for health promotion and prevention need to be carried out. Communication media can also serve as an important tool for familiarizing the population with prevention and health promotion concepts to prepare them for decisionmaking in the areas of personal health expenditures and selection of insurance coverage. The potential of the printed press, radio and television for health promotion and prevention efforts has not been adequately tapped.

In summary, evaluation studies of prevention and health promotion services reported in the literature to-date look promising in regard to the potential of such services for increasing the health status of the American people and decreasing federal and private health care expenditures. Redistribution of the federal health care dollar toward greater equity of expenditures across the health promotion/rehabilitation continuum is critical to successful trials for prevention and health promotion programs. Improved measures of health status must also be developed in addition to morbidity and mortality measures in order to determine the extent to which prevention and health promotion efforts impact on the quality of life as well as life expectancy.

AMERICAN HOSPITAL ASSOCIATION
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STATEMENT OF THE AMERICAN HOSPITAL ASSOCIATION
TO THE
COMMITTEE ON LABOR AND HUMAN RESOURCES
OF THE
UNITED STATES SENATE

July 31, 1981

The American Hospital Association, which represents 6,100 member hospitals and other health care institutions as well as more than 30,000 personal members, is pleased to have this opportunity to present its views on health promotion and preventive medicine.

Hospital Efforts in Health Promotion

Since the mid-1970s, community hospitals have assumed a leading role in promoting individual good health and wellness. A 1980 AHA survey reveals that 55 percent of all hospitals provide health education programs for their communities, and more than two dozen major hospital-based wellness programs and wellness centers have been established. Skokie(IL) Valley Community Hospital, for example, has developed a multifaceted program for its employees and for employees of local businesses which identifies health risks and provides feedback and counseling on how to reduce risks. The hospital offers on-site

CABLE ADDRESS AMERHOSP

health education programs in such areas as smoking, obesity, fitness, alcohol and drug abuse, and the principles of physical fitness.

Hospitals also are focusing on specific community health problems and targeted audiences. Clinton (MA) Memorial Hospital, which has 81 beds, has developed a highly successful series of programs to identify and control cardiovascular risk factors in women. Approximately 75 percent of the women identified as being at high risk are returning for consultation while half of those not at risk are returning for preventive counseling. The hospital has also tested school children and uncovered a high incidence of hypertension.

Many hospitals, such as Riverside Hospital in Toledo, Ohio, and Lexington County Hospital in West Columbia, South Carolina, are placing major emphasis on the health hazards of smoking, and some 20 key hospital leaders are working with the American Cancer Society and the American Hospital Association on recommendations to encourage a leadership role for hospitals in discouraging smoking.

Some institutions, such as Henrotin Hospital in Chicago and Daniel Freeman Hospital in Los Angeles, have developed extensive fitness testing and evaluation centers. Other institutions, including Madison (WI) General Hospital, are developing fitness centers to encourage employees to improve their health. The staff conducts comprehensive physical fitness assessments for each employee coupled with individualized exercise programs aimed at reducing risk factors.

Programs focusing on health maintenance for the elderly also are growing. For example, through a cooperative program with the St. Paul (MN) Division of Public Health, the United Hospitals of St. Paul have provided special health education programs for 25,000 senior citizens, including many residing in special housing units for the elderly.

The American Hospital Association's Commitment to Health Promotion

In 1979, the AHA adopted its current health promotion policy, as stated below. It is the basis for the development of the Association's entire health promotion program.

> Hospitals have a responsibility to take a leadership role in helping ensure the good health of their communities. In addition to the primary mission of providing health care and related education to the sick and injured, the hospital has a responsibility to work with others in the community to assess the health status of the community, identify target areas and population groups for hospital based and cooperative health promotion programs, develop programs to help upgrade the health in those target areas, ensure that persons who are apparently healthy have access to information about how to stay well and prevent disease, provide appropriate health education programs to aid those persons who choose to alter their personal health behavior or develop a more healthful lifestyle, and establish the hospital as an institution in the community that is concerned about good health in addition to one concerned about treating illness.

Prior to the development of this policy, the AHA established a Center for Health Promotion to assist hospitals in undertaking disease prevention and health promotion activities. Examples of the Center's activities are three annual invitational conferences for hospitals identified as "innovators" in community health programming, and four workshops for hospital decision-makers who are considering the development of services to help local businesses assist their employees to stay healthy. Another major Center activity is the publication of PROmoting HEALTH, a newsletter designed to provide information on hospital-based health promotion programs and to offer a forum for the discussion of public policy questions facing the field. AHA is convinced and the data supports the premise that altering some debilitating life styles will ultimately result in better general health and a reduction in unnecessary use of the health care system. It is a goal with a high benefit payoff.

The Federal Role in Health Promotion

The American Hospital Association has been a strong advocate of health promotion and disease prevention activities supported by the Department of Health and Human Services (HHS). In this time of retrenchment in federal spending, the AHA remains hopeful that Congress will conclude that an adequate investment in health promotion today will reap long-range societal benefits.

Already there is evidence that the modest federal investment of the past is beginning to pay dividends. For example, the Centers for Disease Control's (CDC) immunization programs aimed at eradicating preventable childhood diseases have achieved remarkable success. Between 1970 and 1979, reported cases of mumps declined 86.8 percent, diphtheria declined 85.1 percent, rubella 79.4 percent, and measles 71.6 percent. While these reductions are impressive, the levels of these preventable childhood diseases remain high, warranting continued federal support.

The AHA's view of the federal role in health promotion and disease prevention is consistent with the view and spirit voiced before this Committee by HHS Secretary Schweiker. The Secretary stated that his Department needs to perform the roles of leader, catalyst, and partner with other segments of society interested in promoting good health. Although operating on a limited budget for disease prevention and health promotion activities, HHS's investment has resulted in a number of successful cooperative efforts which exemplify the Secretary's and the AHA's approach. For example, in 1979, the Office of Health Information and Health Promotion (OHP) sponsored a National Conference on Health Promotion Programs in Occupational Settings which attracted scores of leaders from business and industry. As a follow-up to the conference, the Washington Business Group on Health and the Department assembled representatives of industries interested in initiating and/or strengthening the evaluation of their own employee health promotion programs. The goal is to stimulate government and business to develop and share common evaluation strategies so that joint studies and a common data base can emerge.

Another example of the federal role of catalyst was a series of eight regional forums on community health promotion supported by OHP. The forums, conducted in cooperation with the privately funded National Health Council and the National Center for Health Education, encouraged business, hospital, labor, and civic leaders to organize resources in their local communities for health promotion activities. These meetings built joint public/private networks which flourish today in many communities.

Federal leadership is necessary for developing a national policy supportive of disease prevention and health promotion. The Secretary's establishment of health promotion as HHS's top priority is a welcome first step. In addition, Healthy People, the Surgeon General's first report on health promotion and disease prevention, presents a conceptual policy framework which already is proving useful to local decision-makers. The National Health Promotion Media Campaign, a multimedia program designed to increase public awareness of health risks, is another example of the catalytic role the federal government can play.

The AHA encourages government to continue to stimulate the development of a solid health promotion knowledge base through expanded research, data collection, demonstration projects and evaluation activities.

Models of Hospital/Government Cooperation

The AHA and its member hospitals have been active in forging alliances at all levels to promote good health. For the past six years, the AHA has worked with HHS's Center for Health Promotion and Education, and more than 50 groups in the private and public sectors to facilitate the growth of quality patient education, outpatient education, and community health education in all health care settings. This effort has stimulated cooperative activities and spurred the development and dissemination of effective health education methodologies. Among the groups that have been involved are the Veterans Administration, Indian Health Service, American Cancer Society, American Lung

Association, American Society of Hospital Pharmacists, health maintenance organizations, group medical practices, state and county health departments and university and college health clinics. A focus of these coordinated activities has been the stimulation of grass roots support for patient and community health education.

Another outstanding example of hospital/government cooperation is the National Cancer Institute's (NCI) Breast Self-Exam In-Hospital program, through which nurses teach breast self-examination to female patients. NCI built upon the successful experiences of four hospitals that were already teaching breast self-examination to patients by involving hospitals in Utah's Intermountain Health Care System to test and refine the procedures. The AHA is now looking at its role in disseminating the informational material from the program and encouraging member hospitals to teach breast self-examination to female patients as a part of preventive care.

These are just a few examples of what can be accomplished when concerned health care professionals work together to promote preventive care. Yet much remains to be done. This is clear from the results of a 1978 study by the then-Department of Health, Education, and Welfare's Departmental Task Force on Prevention which revealed that "7 of the 10 leading causes of death in the United States could be significantly reduced if effective measures could be identified to change the habits of vulnerable Americans with respect to just five behaviors: smoking, alcohol abuse, nutrition, exercise, and adherence to antihypertensive medication." This is a reachable goal.

The Future

It is clear that a foundation has been established for a cooperative public/private sector effort in health promotion. Hospitals and others will continue to look to HHS and the Congress for a public policy which will encourage privately administered, community-based programs. Hospitals are prepared to work with others at the local level to provide the necessary leadership to initiate and implement quality health programs aimed at preventing disease and promoting good health.

Hypertension Control in the Work Setting

The University of Michigan - Ford Motor Company Project

Third Joint USA-USSR Symposium on Hypertension
May 18-19, 1981
Bethesda, Maryland

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ABSTRACT

In 1978, the University of Michigan and Ford Motor Company, supported by National Heart, Lung, and Blood Institute Contract N01-HV-8-2913, undertook a project to implement and test three different methods of assisting employes with hypertension to achieve adequate blood pressure control. These employes were all located in Ford Motor Company plants in southeastern Michigan. A fourth Ford Motor Company plant served as a control site.

The purpose of this presentation is to describe the project design and review preliminary findings. Final data collection will be completed by October 1981, and a final project report will be written by December 1981.

Background

In the past fifteen years health care costs in the Ford Motor Company have doubled every five years from $129.6 million dollars in 1966 to approximately $1.1 billion dollars in 1980. There has been a corresponding increase in management interest in methods and programs which might be effective in controlling health care costs. In 1971, a pilot study was done within the company to determine the nature of health problems responsible for generating health care costs. In a group of 677 randomly selected salaried employes, over a period of sixteen months, cardiovascular disease was responsible for 1.5% of the disabling medical incidents for this group and the medical care costs for these incidents was 29% of the total cost.

A cardiovascular risk factor intervention project was designed and implemented to determine if the controllable risk factors of cardiovascular disease (i.e., smoking, elevated blood cholesterol and hypertension) could be modified and maintained within acceptable medical limits through a behavioral modification program in an industrial setting. This project was directed to company salaried employes and it has been altered several times in the intervening years, but there has been success in identifying and altering cardiovascular disease risk factors in this group of employes. It is not the purpose of this presentation to document or report the results of that study, but simply to indicate how the initial interest in cardiovascular risk factor intervention originated within Ford Motor Company.

To explore the possibility of initiating a cardiovascular risk intervention program for hourly employes, discussions were held with a group of researchers from the University of Michigan. This group had extensive experience in the design and implementation of hypertension detection, referral and treatment programs in the work setting. The objective of these discussions was to design a program or programs of blood pressure control in the industrial setting which could produce a more favorable and cost effective result than the conventional approach to high blood pressure control in industry. A number of approaches were considered:

- Health education programs
- Follow-up programs with the employe's treating physician
- The development of a health insurance benefit program which would provide payment for outpatient care for hypertension
- In-plant treatment of hypertension.

As a result of these discussions, a project was developed which was funded at the University of Michigan by the National Heart, Lung, and Blood Institute. The purpose of this presentation is to describe this project and the preliminary results which have been obtained. The project was originally envisioned as a three-year activity with six months allocated for preliminary planning, blood pressure screening, and project initiation. The period of intervention was to continue for twenty-four months and be followed by a six-month period of evaluation. The project has been extended six months so that the period of intervention is thirty months and the total period will be forty-two months. Final data are now being collected and final evaluation of the project will be completed later this year.

Project Design

Four similar Ford Motor Company manufacturing plants in southeastern Michigan were selected for the project. The general demographic description of these plants is illustrated in Table 1. At each site the project staff worked with a coordinating and planning committee comprised of the plant physician, a representative from the union, and a representative from the plant industrial relations department. These committees assisted in the development of plans for the initial education and screening activities, including timing and location of those activities. The company has ensured that employe participation in the program is voluntary, that participation will not affect any employe's job status, and that employes can withdraw from participation at any time. Thus, the program has no effect on job security or promotional opportunity of the individuals participating in the project.

Medical records of participating employes are treated confidentially. The only personnel who have access to the records are company medical personnel participating in the project and staff personnel from the University of Michigan. Separate medical records have been maintained on participants and all medical records relating to the project will be turned over to the University of Michigan at the conclusion of the project. Medical records pertaining to the project are available to each participating employe on request.

Blood pressure screening was identical at all four sites. Three BP readings were taken, demographic and health data were gathered and employes were given educational material regarding blood pressure readings and what they mean. All employes at Sites 1, 2, and 3 with elevated blood pressure were referred to physicians in the community for further evaluation. At Site 4, all employes with high blood pressure were given the option of being treated in the plant medical department.

Site 1 served as the control site and no follow up with employes or their physicians was undertaken. At Site 2, all employes identified as being hypertensive were contacted at least once every six months by mail, by telephone, or in person at the plant, but no contact was made with the employe's attending physician. At Site 3, all employes were followed as at Site 2 and in addition the attending physician was contacted as needed. At Site 4, individuals who elected to have their hypertension treated in the plant medical department received an intake physical examination, including laboratory work and electrocardiogram, and treatment was prescribed using the stepped care protocol starting with hydrochlorothiazide. These employes were examined annually thereafter and special problems were identified through computerized monthly reports. Routine follow up and educational aspects of the program were handled by the nurse and clerk assigned to the project.

Tables 2, 3, and 4 summarize the demographic and health data gathered during blood pressure screening at the four sites in 1978.

Table 2 shows that the percentage of the work force screened ranged from 66 to 83%. The percentage of male employes ranged from 74 to 96%, and the percentage of nonwhite employes varied from 8 to 16%. The mean age of employes was from 35 to 42 years of age. Table 3 reveals that the prevalence of obesity was similar in all of the plants as was the percentage of employes who smoked cigarettes. In Table 4 note that the prevalence of hypertension ranged from 13 to 19%. This included all employes with high blood pressure readings and those who were receiving treatment for high blood pressure. The last portion of Table 4 illustrates the adequacy of blood pressure control. From 49 to 68% of those employes who had high blood pressure were not receiving treatment for hypertension. Of those on treatment, from 13 to 23% still had high blood pressure readings. From 1 to 4% had borderline blood pressure control and from 13 to 26% had controlled blood pressure or normal readings.

Preliminary Findings

Next, I should like to outline what has happened to the hypertensive employes since the initial screening in 1978. In Table 5, the changes in caseload at each site since 1978 are identified. There have been additions to the caseload at each site as well as removals from the caseload for various reasons. Table 6 shows that the net attrition at each site ranges from 10% at Site 3 to 26% at Site 2. It is thought that attrition at Site 2 was largest because of the older age at that site and the consequent larger number of retirees. The attrition at Site 4 is also relatively high due to a recent increase in permanent layoffs among the employes at that plant.

Table 7 illustrates the program status of employes in the active follow-up caseload at Sites 2 and 3. Referred cases are those individuals who had high blood pressure readings at the time of screening. Non-referred cases are those individuals who were hypertensives receiving treatment and whose blood pressure levels were normal at the time of screening. Special cases included individuals with labile blood pressure. You will note that Site 2 has twice as many controlled hypertensives as Site 3.

Table 8 illustrates the program status of employes in the follow-up caseload at Site 4. Those designated as program patients (39%) are those employes who have elected the on-site treatment program. Program clients are those employes who have chosen to receive treatment from their own physician and the remainder of the caseload consists of special cases. The relatively large percentage of employes with labile blood pressure may be related to the relatively young mean age of the population.

The success of the program in referring employes with hypertension to a physician is shown in Table 9. Nearly all referred employes (96 to 98%) actually saw a physician about their blood pressure. There were no significant differences across the three sites. It should be noted that at Site 4 in order to examine the effects of discrete interventions only the program patients (those receiving in-plant treatment) are included. In Table 10, the diagnostic status of the successfully referred employe is indicated. The only difference across the three sites is the larger percentage of false positive/labile cases at Sites 3 and 4. These two groups are similar to the groups identified as special cases in prior tables. The difference is that special cases were identified after successful referral to a physician. It appears that this difference between Sites 3 and 4 from Site 2 may be age related. Site 2 has an older average age and a lower prevalence of blood pressure lability.

Table 11 outlines the treatment outcomes for the three blood pressure control models. Site 4 includes only program patients and it shows the largest percentage of the caseload with adequate blood pressure control (BP below 140/90). The non-referred hypertensives at Site 2 show similar results to Site 4, but all of these individuals were under adequate treatment when first identified. In general, only 10% or less of the various caseloads had uncontrolled blood pressure as of March 1981. An additional 2 to 5% had recently had their treatment changed and/or were showing significant progress toward adequate control.

Table 12 shows the treatment outcomes for Site 2 employes receiving structured versus unstructured follow up as of March 1981. In developing the follow-up objectives at Site 2, the major objectives identified were:

1. To get the employe to see a physician about his/her blood pressure.
2. To get the employe to follow the treatment regimen prescribed by the physician.
3. To get the employe to make return visits to the physician on schedule.

Other program objectives were:

4. To provide the employe with general knowledge about high blood pressure and the risk factors associated with it.
5. To provide the employe with general knowledge about the nature of treatment for high blood pressure.
6. To get the employe to accept personal responsibility in the control of his/her blood pressure.
7. To get the employe to report possible side effects of medication to the physician.
8. To get the employe to bring uncontrolled blood pressure to the attention of the physician.

To accomplish these objectives, two approaches were developed -- an unstructured approach and a structured approach. The unstructured approach focuses on the employe's specific problems in blood pressure control. The employe to a great extent determines the topic for discussion in each educational intervention session. During each session the counselor attempts to determine any problems the employe may be having and addresses those problems specifically. The employe is actively involved in the learning process and is not just a passive recipient of information. There is some structure to this approach, of course, and a follow-up protocol is used to assure that the same basic information is gathered from each employe.

The structured approach attempts to provide, at each intervention session, a specific set of information about hypertension and its control, regardless of the employe's apparent interest in the subject. The content of information delivered in these two approaches does not differ. The major difference is in method of delivery. Each intervention session has two parts: a telephone conversation initiated by the counselor, and a visit with the counselor at the work site. The specified information is covered at both points in the structured approach -- over the telephone and in person. In addition, printed materials are given to the employe during the visit. If the employe cannot visit the counselor personally for any reason, the material is mailed to the employe's home.

These two methods were tested because we felt some clues might become available on what type of individual might best carry out the educational intervention if the project was to be expanded: a trained health educator for the unstructured approach or a registered nurse or other medical personnel for the structured approach.

As noted in Table 12, there is no statistically significant difference between the structured and unstructured approach to follow up.

Table 13 summarizes the effectiveness of blood pressure control at Sites 2, 3, and 4 as of March 1981. The success of referral was nearly identical at all three sites. The slightly smaller percentage of employes diagnosed as having hypertension at Sites 3 and 4 is due primarily to the higher number of individuals with labile blood pressure at those sites. The adequacy of blood pressure control (blood pressure below 160/95) does not vary significantly. It appears that all three interventions are relatively effective at controlling hypertension among employes.

Preliminary data on absenteeism (first year of study) have been reviewed. Employes at the four sites who were identified during screening as hypertensive were matched with normotensive employes for age, race, sex, and type of work (hourly or salaried). Absenteeism data for each group were gathered for the period of one year prior to screening and one year after screening.

The data indicate that hypertensive employes had more sickness absenteeism than normotensive employes both before and after screening. There was no significant difference between hypertensives and normotensives in the average change in absenteeism after screening. There was also no significant difference among hypertensives who did not know they had hypertension at the time of screening, those aware of high blood pressure readings in the past, those under treatment whose blood pressure was uncontrolled, and those with controlled hypertension. Interestingly, those employes who chose to receive treatment in-plant had significantly lower absenteeism after screening than those receiving treatment from private physicians. The significance of these data will be evaluated further when additional data on absenteeism (subsequent years) is available for comparison.

Final Data Collection

As I have mentioned, the final data are now being collected for the project:

-- Data on the effectiveness of blood pressure control

-- Absenteeism data for the final 18 months of the project

-- Data on sickness and accident benefit utilization

-- Data on medical care costs

These data will be available for analysis later this year.

Preliminary Summary

1. In-plant blood pressure control programs are feasible
    - Members of management and labor are both interested and cooperative and should be involved in the program
    - Technical aspects are feasible in an in-plant medical department in the automotive industry
2. Large numbers of employes who have high blood pressure and are unaware of it can be identified.
    - These individuals can be effectively referred for treatment of their hypertension
3. Follow-up programs, regardless of type, seem to assure more successful treatment of hypertension.
4. The prospects of successful referral and treatment seem to be enhanced if an in-plant treatment program is offered.
5. Absenteeism data are inconclusive at this time.

As I have mentioned previously, the data which will allow cost effectiveness evaluation of this project are being collected at the present time. It is anticipated that the data will be analyzed and a final project report will be written by year end 1981. At a time when the automotive industry is in the midst of a serious economic downturn, the cost effectiveness of this project is likely to be a major determinant as to whether projects such as the one I have just described will be continued at the plants involved in the project or expanded to additional plants.

TABLE 1

	NUMBER OF HOURLY EMPLOYES	PERCENT NON-WHITE	PERCENT MALE	AVERAGE AGE (YEARS)
SITE 1: MONROE	2.661	10%	87%	36
SITE 2: LIVONIA	4.489	14	97	42
SITE 3: WOODHAVEN	3.965	18	93	36
SITE 4: SALINE	2.780	12	75	34

TABLE 2

DEMOGRAPHIC AND HEALTH DATA GATHERED DURING BLOOD PRESSURE SCREENING OF EMPLOYES IN FOUR AUTOMOBILE PLANTS. JUNE-NOVEMBER 1978

	SITE 1	SITE 2	SITE 3	SITE 4
NUMBER OF EMPLOYES SCREENED	2126	3464.	3323	2311
• PERCENT OF THE WORK FORCE	83%	75%	77%	66%
SEX. RACE AND AGE OF EMPLOYES				
• PERCENT MALE EMPLOYES	91%	96%	93%	74%
• PERCENT NON-WHITE EMPLOYES	8%	14%	16%	11%
• AVERAGE (MEAN) AGE OF EMPLOYES	38 YRS	42 YRS	37 YRS	35 YRS

TABLE 3

DEMOGRAPHIC AND HEALTH DATA GATHERED DURING BLOOD PRESSURE SCREENING OF EMPLOYES IN FOUR AUTOMOBILE PLANTS, JUNE-NOVEMBER 1978

	SITE 1	SITE 2	SITE 3	SITE 4
PREVALENCE OF OBESITY				
• PERCENT OF EMPLOYES 20% OVERWEIGHT OR MORE	30%	29%	26%	22%
• PERCENT OF EMPLOYES 30% OVERWEIGHT OR MORE	14%	13%	12%	10%
PREVALENCE OF SMOKING				
• PERCENT OF EMPLOYES WHO SMOKE CIGARETTES	51%	47%	54%	45%

TABLE 4

DEMOGRAPHIC AND HEALTH DATA GATHERED DURING BLOOD PRESSURE SCREENING OF EMPLOYES IN FOUR AUTOMOBILE PLANTS, JUNE-NOVEMBER 1978

	SITE 1	SITE 2	SITE 3	SITE 4
PREVALENCE OF HIGH BLOOD PRESSURE				
• PERCENT OF EMPLOYES WITH HBP*	16%	19%	17%	13%
ADEQUACY OF BLOOD PRESSURE CONTROL AMONG THOSE EMPLOYES WITH HBP:				
• % NOT ON TREATMENT FOR HBP	53%	49%	68%	61%
• % ON TREATMENT, BUT STILL HIGH	23	21	18	13
• % WITH BORDERLINE CONTROL	1	4	1	3
• % CONTROLLED (NORMAL READINGS)	23	26	13	23
	100% (332)	100% (673)	100% (577)	100% (297)

* INCLUDES EMPLOYES WITH HIGH BP READINGS AND THOSE ON TREATMENT FOR HBP

TABLE 5

CASELOAD ATTRITION. AUGUST 1978-MARCH 1981

	SITE 2	SITE 3	SITE 4
INITIAL CASELOAD SIZE	673	577	297
ADDITIONS TO CASELOAD	141	61	41
TOTAL CASELOAD SIZE	814	638	338

TABLE 6

CASELOAD ATTRITION. AUGUST 1978-MARCH 1981

	SITE 2	SITE 3	SITE 4
REASONS FOR REMOVAL FROM CASELOAD:			
• TAKEN OFF TREATMENT/NOT HYPERTENSIVE	13	11	3
• DIED	14	5	1
• RETIRED	108	21	31
• TERMINATED/TRANSFERRED	50	18	31
• UNABLE TO FOLLOW UP	30	6	4
TOTAL ATTRITION	215	61	70
PERCENT ATTRITION	26%	10%	21%

TABLE 7

PROGRAM STATUS OF EMPLOYEES IN ACTIVE FOLLOW-UP CASELOAD AT SITES 2 & 3. MARCH 1981

	SITE 2	SITE 3
REFERRED EMPLOYEES: HIGH BP AT TIME OF SCREENING	76%	81%
NON-REFERRED EMPLOYEES: CONTROLLED AT TIME OF SCREENING	29	14
SPECIAL CASES: LABILE BP. UNDER OBSERVATION	4	5
	100%	100%
EMPLOYEES IN ACTIVE CASELOAD	599	577

TABLE 8

PROGRAM STATUS OF EMPLOYES IN ACTIVE FOLLOW-UP SUCCESS OF REFERRAL TO PHYSICIANS. MARCH 1981

	SITE 4
PROGRAM PATIENTS: EMPLOYES WHO JOINED THE ON-SITE TREATMENT PROGRAM	39%
PROGRAM CLIENTS: EMPLOYES CHOOSING TREATMENT WITH THEIR OWN PHYSICIAN	46
SPECIAL CASES: EMPLOYES WITH LABILE BP. UNDER OBSERVATION BY PROGRAM	15
	100%
EMPLOYES IN ACTIVE CASELOAD	(268)

TABLE 9
SUCCESS OF REFERRAL TO PHYSICIANS, MARCH 1981

	SITE 2	SITE 3	SITE 4
	REFERRED EMPLOYES	REFERRED EMPLOYES	PROGRAM PATIENTS
REFERRAL STATUS OF EMPLOYES WITH HIGH BP AT SCREENING:			
• REFERRAL STATUS UNKNOWN	2%	1%	0%
• UNSUCCESSFUL REFERRAL	1	3	2
• SUCCESSFUL REFERRAL	97	96	98
	100%	100%	100%
	(400)	(469)	(105)

TABLE 10
DIAGNOSTIC STATUS OF SUCCESSFULLY REFERRED EMPLOYES, MARCH 1981

	SITE 2	SITE 3	SITE 4
	REFERRED EMPLOYES	REFERRED EMPLOYES	PROGRAM PATIENTS
DIAGNOSTIC STATUS OF SUCCESSFULLY REFERRED EMPLOYES:			
• FALSE POSITIVE/LABILE	4%	14%	11%
• BORDERLINE BP, NO TREATMENT	4	3	1
• HIGH BP, BUT NO TREATMENT	*	*	0
• UNDER OBSERVATION/DIAGNOSIS INCOMPLETE	0	0	2
• BEING TREATED FOR HYPERTENSION	92	83	86
	100%	100%	100%
	(387)	(452)	(103)

* LESS THAN 1%

TABLE 11

TREATMENT OUTCOMES FOR THREE BP CONTROL MODELS, MARCH 1981

	SITE 2		SITE 3		SITE 4
	REFERRED EMPLOYEES	NON-REF'D EMPLOYEES	REFERRED EMPLOYEES	NON-REF'D EMPLOYEES	PROGRAM PATIENTS
● RECENT BP STATUS UNKNOWN	7%	9%	15%	20%	11%
● BP UNCONTROLLED	10	3	9	4	6
● TREATMENT CHANGED OR PROGRESS BEING MADE	3	3	3	2	5
● BP NEAR SUCCESS OR PHYSICIAN SATISFIED	32	18	32	20	6
● SUCCESSFUL TREATMENT (BP BELOW 140/90)	48	67	41	54	72
	100%	100%	100%	100%	100%
	(355)	(174)	(372)	(82)	(89)

TABLE 12

TREATMENT OUTCOMES FOR SITE 2 EMPLOYEES RECEIVING STRUCTURED VS. UNSTRUCTURED FOLLOW-UP, MARCH 1981

	REFERRED EMPLOYEES		NON-REF'D EMPLOYEES	
	S*	U*	S*	U*
● RECENT BP STATUS UNKNOWN	7%	6%	6%	10%
● BP UNCONTROLLED	11	10	4	3
● TREATMENT CHANGED OR PROGRESS BEING MADE	3	2	3	4
● BP NEAR SUCCESS OR PHYSICIAN SATISFIED	33	32	18	18
● SUCCESSFUL TREATMENT (BP BELOW 140/90)	46	50	69	64
	100%	100%	100%	100%
	(184)	(171)	(82)	(92)

* S = STRUCTURED FOLLOW-UP APPROACH   * U = UNSTRUCTURED FOLLOW-UP APPROACH

TABLE 13

SUMMARY OF EFFECTIVENESS OF BLOOD PRESSURE CONTROL ACROSS THREE SITES, AS OF MARCH 1981

	SITE 2	SITE 3	SITE 4*
OF THOSE EMPLOYES WITH HIGH BP AT SCREENING:			
• SUCCESSFUL REFERRALS: PERCENT WHO SAW A PHYSICIAN	97%	96%	98%
• DIAGNOSED HYPERTENSIVES: OF THOSE WHO SAW A PHYSICIAN, PERCENT PLACED ON TREATMENT	92%	83%	86%
OF ALL DIAGNOSED HYPERTENSIVES:			
• AT OR NEAR CONTROL: BP NEAR OR BELOW 140/90 OR PHYSICIAN IS SATISFIED	82%	73%	78%

*PROGRAM PATIENTS ONLY

Association of Schools of Public Health

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July 14, 1981

The Honorable Orrin Hatch
Chairman
Senate Comittee on Labor and
Human Resources
U.S. Senate
Washington, D.C. 20510

Dear Mr. Chairman

On behalf of all the Deans of the U.S. Schools of Public Health, I respectfully submit our statement for the record on hearings concerning preventive medicine and health promotion (July 16-17, 1981).

ASPH applauds your efforts, Mr. Chairman, to have Congress recognize the special needs of programs in preventive medicine. If a change is to be effected in the health care system to bring about a greater emphasis on prevention, a change must be made in the attitudes and behavior of the medical profession. Medical students, and hence physicians, are not trained to understand the potential of prevention. To promote awareness of prevention within the medical profession, it is necessary to foster integration of prevention principles within federal policy regarding health manpower training. Congress should provide incentives to medical schools to integrate prevention within their curriculum and by providing direct support for departments of preventive medicine and residency training to students in preventive medicine in Schools of Public Health as well as program support for these Schools.

We believe, Mr. Chairman, that continued federal assistance is actually an investment at the front end of the health care system. The Schools (i.e., through their students, graduates, researchers, faculty and community service programs) will not only help prevent illness but will also help slow down the rapidly escalating costs of medical care.

Hon. Orrin Hatch
July 14, 1981 - Page 2

ASPH thanks the Committee on Labor and Human Resources for the opportunity to present its views on preventive medicine and health promotion.

Sincerely,

Robert W. Day

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AND

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FOR THE RECORD

STATEMENT
OF
THE ASSOCIATION OF SCHOOLS OF PUBLIC HEALTH

TO

THE COMMITTEE ON
LABOR AND HUMAN RESOURCES
U.S. SENATE

ON

PREVENTIVE MEDICINE AND HEALTH PROMOTION

BY

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HEALTH PROMOTION AND DISEASE PREVENTION:
ROLE OF THE SCHOOLS OF PUBLIC HEALTH

The Association of Schools of Public Health welcomes the opportunity to describe the role of the Schools in the important new national emphasis placed on health promotion and disease prevention. This subject is one of overriding concern to the Schools of Public Health. These institutions were developed specifically, and very early in this century, to foster the scientific advance to disease prevention and to train students in those applications.

There is today general acceptance of the concept of disease prevention and the promotion of better health as the most effective way of controlling health care costs.

> "It is the thesis of this report that further improvements in the health of the American People can and will be achieved - not alone through increased medical care and greater health expenditures - but through a renewed national commitment to efforts designed to prevent disease and to promote health."
>
> Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention

Public health science and the practice of public health have made major strides in the control of communicable and infectious diseases. Witness the near absence of polio today. World-wide application of public health principles and practice has resulted in the elimination of smallpox.

With the control of infectious diseases the chronic illnesses now represent our major causes of death and disability. Heart disease, cancer, and other vascular diseases impose enormous burdens on our population. Application of the approaches unique to public health that have proven successful in controlling infectious diseases are vital in the effort to limit the toll from these chronic ailments.

"West Point of Public Health" was the term applied to the nation's then ten schools of public health in 1958 when President Eisenhower signed the Hill-Rhodes Bill. In that bipartison landmark legislation the Congress recognized the specialized training of professional public health leaders as a federal responsibility to be shared with the training institutions. Indeed, it was noted at that time that, had not the schools already existed as an essential national resource, the health equivalent of a military academy, or war college, would have had to be created.

The nation's schools of public health* represent the single largest resource for training persons for careers in public health science and practice. Recognized shortages of public health professionals exist. The several schools, few in number, are a national resource and have been recognized as such by the provision of federal aid for the past 25 years.

---

* University of Alabama, Birmingham, University of California - Berkeley, University of California - Los Angeles, Columbia University, Harvard University, University of Hawaii, University of Illinois, The Johns Hopkins University, University of Loma Linda, University of Massachusetts, University of Michigan, University of Minnesota, University of North Carolina, University of Oklahoma, University of Pittsburgh, University of Puerto Rico, University of South Carolina, University of Texas at Houston, Tulane University, University of Washington and Yale University. Boston University and San Diego State University will be seeking accreditation as schools of public health this year and in 1982, respectively.

The Association of Schools of Public Health is the only national organization representing these 21 schools of public health.

The schools, integral to private and public universities, have had federal participation in the costs of providing basic education since 1958. This support, although declining relatively in recent years, has stimulated expansion of both the numbers of schools and the aggregate number of students and graduates. The schools of public health do not expect the current level of support solely from their parent institution, private or public. A significant proportion of students attend each school who are residents of states other than the state in which the school is located, and graduates of the schools in significant proportions work outside of the state or region in which they are trained. In addition, the schools are principal resources for continuing education for public health professionals. Thus the service and teaching roles serve regional and national needs.

The schools are also principal resources for developments in public health science in the understanding and control of the chronic diseases. Public health science uniquely complements the techniques and understandings derived from both basic biomedical and clinical research. Needed new knowledge with which to combat heart disease and stroke, for example, will continue to require major contributions from the schools of public health.

There is a manpower shortage in public health. Whereas federal health professional manpower policy has focused almost exclusively on physicians, and has based policy decisions affecting other health professions from conclusions relating to physicians, available evidence indicates an undersupply of public health personnel. This is in distinction to numerous observations which suggest an oversupply of physician specialties by the end of this decade

(Graduate Medical Education National Advisory Committee, September, 1980). The latter report, however, showed a very definite shortage of physicians trained in preventive medicine. The schools of public health are major resources for post-MD training in preventive medicine. Proposed federal aid for this training is very much needed as preventive medicine is not hospital based, thus requiring subsidy from sources other than patient charges.

Graduates of the schools of public health work primarily in the areas of health promotion and disease prevention. They represent the basic resource pool from which both governmental and private agencies and business draw to meet their manpower needs. Industry relies heavily on the schools to train their employees in industrial hygiene, environmental toxicology, and related areas. The breakdown is as follows: 50% of graduates in a given year work for federal, state or local government service, 34% in non-profit community health agencies or teach or perform research in the university setting, and the remainder, 16%, work in industry and other private organizations.

Students who attend the schools are often mid-career professionals. The average age is slightly over 30. In addition, a significant percentage of students attend the schools part-time and are already working in the field while upgrading their skills.

A public health degree does not increase the income potential of the graduate as do many of the other health professional degrees. Graduates of schools of public health do not enjoy lucrative incomes, in distinction with some of the other health professions. Their modest salary levels are reflected in a recent survey which showed an average annual salary of $30,000 after 15 years of experience. Of the 1979 graduates, 57% earned less than $19,000 per year, 15% $19,000 to $22,000, and 20% $25,000 and above.

For these and other similar reasons, federal traineeship support to selected students in schools of public health was instituted in 1956. Costs of education and particularly the cost of relocating while in mid-career to pursue graduate education in public health has escalated dramatically in recent years. The need to diversify student groups in schools of public health such that all segments of our society are represented has called for further expenditures in behalf of student aid. All of these factors are recognized in the continuing support to students in schools of public health provided by the federal government.

Continued assistance for students in schools of public health is recommended as a most important component in a national strategy for disease prevention and health promotion. Emphasis in the practice of public health is placed on groups rather than individuals and is oriented more towards community efforts in distinction with practice of the other health professions. Given the mechanisms of reimbursement of health professionals a substantial portion of those in public health will not realize a return on their educational investment comparable to settings in which fee for service reimbursement is the rule. To attract and maintain the most qualified and proficient practitioners of public health some subsidy of their education will remain a necessity.

To preserve this current educational resource the schools of public health and their students require continued federal support. Prior to 1978 federal assistance was provided as a formula based in part on the relative size of each of the schools. More recently capitation has been the mechanism employed for the dispersement of federal funds to the schools. The Association of Schools of Public Health proposes that some mechanism of cost sharing between the schools and the federal government be maintained, based on the regional and national nature of these schools. Without federal support the schools will of course continue in their role and mission. However, as the principal resource for providing trained personnel in disease prevention and health promotion,a national emphasis on better health for the country could not be as well served with a lesser base for training.

To carry out the regional and specialized functions of the schools - continuing education, support to public and private organizations in the furtherance of their health promotion and disease prevention goals, to inform and educate the public about healthful lifestyles - all of these important functions of the schools will require from time to time specialized approaches for which financial support, at least in the early phases, has proven effective. The schools have had a special project federal support authority since 1960. It is recommended that a major component of support to the schools of public health continue to be special projects. Determination of high priorities within the national interest in preventing illness and promoting positive health can vary over time and be reflected in the way in which these sources of special support are awarded.

The knowledge base for preventing illness and promoting health requires a major investment to achieve maximum effectiveness from this approach. Public health science has provided, to this point, much of the applied knowledge as well as the theoretical basis for disease prevention and promotion of better health. The Association of Schools of Public Health strongly recommends that a special and major source of federal support be made available specifically for better understanding and practice of disease prevention and health promotion. Sums expended on the disgnosis and treatment of illness over the past several decades now total many billions of dollars. The Association proposes a major thrust oriented towards understanding the natural history of illnesses and reasons why some groups and individuals in the population are healthier than others, but with a focus emphasizing disease prevention and better health. A system of centers has proven effective in combating conditions such as mental retardation and cancer. Why not a program of centers devoted to preventing illness and promoting better health? The knowledge gained will be a public good. Judging by evidence to date the public will adopt approaches to better health and avoidance of disease discriminatingly, based on the value estimated. But in many instances the "delivery" of these approaches to better health will be through informing the public broadly rather than by examination, diagnosis and treatment of the individual. For these and other reasons public expenditure on the generation and dissemination of this new knowledge seems the most appropriate mechanism.

In developing new understandings which will promote positive health and prevent illness, as well as making available practical approaches individuals and groups can utilize in improving their health, the schools of public health are offered as primary institutional resources. The achievements of public health science stand in evidence of the value of these methods and applications. The schools of public health are the only health professional educational establishments uniquely devoted to understanding and training for practice in disease prevention and health promotion. Likewise, the schools, their faculties and graduates, emphasize interventions in the community as their principal approach to practice. The provision of a stable basis of support to the schools, and the use of the schools as integral resources in initiatives towards improving the nation's health through disease prevention and health promotion is proposed as consistent with this substantial record of past performance.

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July 7, 1981

David N. Sundwall, M. D.
Professional Staff Member
Committee on Labor and Human Resources
G-237 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Dave:

At the suggestion of Stephen Barton of the Committee for Responsible Health Policy, I am sending you copies of recent testimony on the hypertension project grant. As I told you when we met a few weeks ago, this program is generally regarded as the best example in preventive medicine of a private-public sector combination.

I hope that we can get together soon.

Cordially,

Mike

Mike Gorman
Executive Director

Enc.

For The Prevention of Heart Disease, Stroke and Kidney Failure

THE HYPERTENSION GRANT -- TARGETED PREVENTION AGAINST A NATIONAL DISEASE

Testimony Before Senate Labor & Human Resources Committee
On Proposed Fy 1982 Authorization for Preventive Health Block Grant
by
Mike Gorman, Executive Director, CITIZENS FOR THE TREATMENT OF
HIGH BLOOD PRESSURE (Dr. Michael E. DeBakey, Chairman)
9:30 A.M., Friday, April 10, 1981
Room 4232 Dirksen Senate Office Building

Mr. Chairman: The purpose of the hypertension project grant to the states is to focus on populations at high risk of hypertension in order to motivate and assist them in learning whether they have high blood pressure and in pursuing early medical treatment when necessary. Project grants are awarded to state health authorities to assure that systems exist to make blood pressure screening available and accessible to high risk and hard to reach populations; to provide referral linkages to physician treatment; and to assist private sector physicians in following-up and monitoring hypertension patients to assure they are receiving treatment.

In the Administration proposals for block grants, we are thrown in with ten other unrelated programs in a so-called Prevention Health Block. Our program becomes part of the basket of money which is turned over to the states. Perhaps I shouldn't say "basket," because the 25 percent cut in the preventive block presumably means that we will be operating at a level of $15 million in Fiscal 1982 -- $5 million less than the current annual appropriation of $20 million under which we have operated during Fiscal years 1980 and 1981.

The effort to throw us into an amorphous block grant misses the whole point of why the hypertension project grant was legislated as a national campaign against a disease which affects 60 million Americans. The killing and disabling effects of high blood pressure were known for a number of years, but no one suggested a national program to attack the disease until relatively recently. It is the consequences of high blood pressure which have the most devastating impact. It is the major factor in three-fourths of all stroke deaths and is a major factor in two-thirds of all heart attacks. Yet in a survey conducted by the National Center for Health Statistics in the early 1970's, it was disclosed that more than one-half of Americans with high blood pressure did not know they had the disease, and only one-eighth of all hypertensives were on effective treatment.

In our travels about the country, a number of us tried to get the states interested in setting up an educational program leading to the detection and treatment of high blood pressure. Only a few states responded. It was obvious that this was a national problem, crossing states indiscriminately. It also impacted large segments of Americans in an uneven way. For example, blacks had twice as much high blood pressure as whites, and Hispanics were not far behind. In 1972, we called upon Elliot Richardson, then Secretary of Health, Education and Welfare. Secretary Richardson was interested in our proposal -- he told us that his father, a distinguished surgeon at Massachusetts General Hospital, had suffered from high blood pressure which led to a stroke, resulting in the end of a promising medical career. The Secretary said he would support a national effort if one stricture were observed -- the federal government would supply a small amount of seed money, but he wanted the private sector to carry on the major part of the job.

We took considerable time devising a limited grant to the states which would essentially provide money to hire and train the technical expertise they lacked. The federal government and the private sector would join in supplying suggested medical guidelines for the treatment of high blood pressure, since there was considerable confusion in the medical field as to what therapies should be used.

Initially, there wasn't much Congressional interest in our proposal. We were finally forced to attach our little program to a renewal of several public health authorities, and we were placed in 314(d), the basket grant to the states. Only $3,750,000 was appropriated to us for the first year, which meant that the grant to many less populous states was less than $50,000. We really got nowhere until the 1978 consideration of the Health Promotion and Disease

Prevention bill. Senators Schweiker and Kennedy were the key legislators in finally getting us out from under 314(d) and establishing us as a clearly visible competitive project grant. For the first time, states now had to submit detailed plans to compete for existing money with a Conressional directive that they concentrate a major portion of their efforts toward the underserved and the minorities. Part of our modest financial success -- going from $3,750,000 in Fiscal 1975 to $20 million in Fiscal 1980 and 1981 -- is attributable to this new visibility.

Mr. Chairman, I am deadly serious when I emphasize the point that if our program lost its national visibility, which it has built up slowly and painfully over the past years, we would cease to exist as an effective deterrent to high blood pressure. Appearing before the Senate Labor-HHS Appropriations Subcommittee on March 16, I made this unequivocal statement after checking with our entire medical board:

"Mr. Chairman, if given the choice of much more money for high blood pressure in an amorphous block grant, or less money but a continuing identifiable targeted program, our Board would have no hesitation in choosing less money but continued identity, public visibility and strict accountability."

From its inception, 80 percent of the strength of this program has been the continued support of the private sector. The High Blood Pressure Coordinating Committee, including the American Heart Association, American Medical Association, American Nurses Association, National Medical Association, American Hospital Association, American Osteopathic Association, Citizens for the Treatment of High Blood Pressure, American Academy of Family Physicians, American College of Chest Physicians, American College of Physicians, American Dental Association, American National Red Cross, American Pharmaceutical Association, National Kidney Foundation, is responsible for the technical studies and medical guidelines which have made this program such a success.

But we have many additional resources. In a recent speech, Dr. Robert Levy, the Director of the National Heart Institute, estimated that we receive the equivalent of at least $50 million a year in voluntary efforts. Our mass media program accounts for a good portion of this. Through the Advertising Council of America, we have reached millions of Americans with our message. Our major 1981 television spokesman is Bob Hope. During High Blood Pressure Month each year, fire departments, Red Cross blood banks, private physicians and literally thousands of industries conduct accelerated screening programs to detect victims of hypertension.

Because of all the foregoing, we deeply object to being thrown into a block grant because it cuts us off from our major constituency -- the private sector. I thought this Administration believed in the virtues of the private sector. It may celebrate it in rhetoric, but in actuality turning over this program to state health departments who have bureaucracies too, and are not much interested in high blood pressure, would really signal the end of a program which has been described by Blue Cross/Blue Shield "as the most successful preventive effort against a chronic disease." The National Center for Health Statistics can supply this Committee with a mass of data on the effectiveness of the program. To abbreviate a number of factual studies of the program, since its advent in 1972 there has been a miraculous 38 percent decrease in stroke deaths and a 25 percent decrease in heart attacks in this country.

Finally, Mr. Chairman, I want to deal with some of the practical problems involved in implementing these large block grants throughout the country. The hearings which this Committee conducted on April 2 were very illuminating because the state legislators who testified -- and they were an excellent panel -- endorsed the block grant in a general and vague way but continually brought up the point that it really had not been thoroughly thought through; that at least a year would be required to work this proposed block grant through the legislative process. In fact your star witness, Robert Monier, President of the New Hampshire State Senate, hammered home at least three times the point that these block grants could not be turned over to the states without going through a thorough state legislative examination process. Several of the witnesses pointed out that their state legislatures had adjourned for the year and that it would be very difficult to get them back into session to deal with this problem.

These critical comments which you heard on April 2 were relatively mild compared to the testimony which Congressman Waxman and the House Health Subcommittee took on April 6 and 7 of this week. The state health commissioners, city health commissioners, county health officers and others complained most strongly about not being involved with the federal government in a discussion and ventilation of the many issues, making it practically impossible to implement the vague and invisible Administration block grant proposals. All were puzzled that the Administration did not know the 15 year history of the original health block grant -- 314(d) of the Public Health

Service. Quoting from just one witness, Dr. William Kemmerer, Director of the Galveston County Health District, Texas, who appeared for the National Association of Counties: "Mr. Chairman, today we all know the sad history of 314(d)...Now it is being proposed that almost all funding for public and community health services be placed in two block grants at a much reduced level. Moreover, as we understand it, these proposals contain no measures which would safeguard us from a repetition of the 314(d) experience. Given this situation, the flexibility that a block grant would give us at the local level would be a hollow victory, indeed. In fact, if we had to choose between the block grants drafts as we understand them and the current categorical funds, we might well conclude that the public interest would best be served by the present categorical funding."

Another major thrust was the inability of most state and local governments to absorb these sudden sharp cuts in basic services. For example, the Chairman of the New Jersey General Assembly's Finance Committee stated flatly that New Jersey does not have the means to replace this lost funding from local sources. New Jersey will lose $14 million in Fiscal 1982. The gentleman from New Jersey also dealt with a very crucial point, that programs in the two major health block grants are, in many states, split up among four or five different departments of state government and, in some cases, are totally administered by local governments. In New Jersey, for example, maternal and child health programs and family planning services are both in the Division of Community Health of the Health Department. Yet the proposed block grant alignment separates these two functionally related activities. Other programs, he pointed out, are slated for consolidation which cut across departmental lines. Alcohol and drug abuse are in the Department of Health, while mental health services are in the Department of Human Services. Under the Administration proposal, both will be lumped into the same grant. This doesn't get into the enormous problem that many of these programs are not operated at present by state health agencies. In New Jersey, local communities administer rat control and some alcohol treatment programs. Community non-profit corporations operate community health centers.

Mr. Chairman, time does not permit going into some of the additional problems raised at the April 2 hearing. Although four of the legislators were from the majority party, at least two of them -- both Republicans -- insisted that public hearings should take place around the state before the legislatures acted on these block grant proposals. In essence, they seemed to be saying this -- having not seen the federal legislation as yet and having to face all these problems and supposedly solving them by September 30, 1981, what was the big rush? Saving money? As one witness stated it: "The concept of consolidation in achieving a 25 percent saving is a myth." According to a GAO report, the total federal administrative cost for administering a 50 state high blood pressure program was two percent in 1979. Can any state match this?

Let us take the state of Utah as an example. Mr. Charles Doane, the state representative who appeared at the hearing, said that Utah wasn't much interested in rat control or lead-based paint poisoning which are both included in the preventive health block. However, he failed to mention the enormous interest of the citizens of Utah in high blood pressure and their continued endorsement of the national high blood pressure campaign. For example, a year ago the Department of Health and Human Services received a report on a massive six year clinical study on whether or not it was advisable to treat patients with mild hypertension. Until that study was completed, there wasn't any clear scientific proof of the cost-effective benefits of treating this large group of patients. The study demonstrated that the systematic, effective treatment of mild hypertension could reduce premature deaths among hypertensives by 20 percent. There are approximately 25 million Americans with so-called mild hypertension; the Hypertension Detection and Follow-up Study documented the fact that most of these mild hypertensives were not being treated. As the report noted: "Tens of thousands of Americans with high blood pressure are now probably dying at an earlier age than they should...To the millions of Americans who have high blood pressure, this study says get on treatment and stay on treatment. It will mean a much longer life...more years to spend with your loved ones. It also says that if you have patients with mild hypertension do not assume they do not require some form of treatment. If you do, you may be denying them years of life."

Salt Lake City was selected as one of the 14 cities or rural areas for this massive clinical demonstration. Dr. C. Hilmon Castle, Director of the Community Hypertension Clinic in Salt Lake City, was one of the principal investigators in this trial. The national study cost $70 million over the six year period, but as the House Appropriations Committee pointed out last year after examining the report, it can save billions of dollars if its recommendations are implemented in the areas of high blood pressure, strokes and heart attacks.

Mr. Chairman, I ask this question quite respectfully and with due deference to the great state of Utah -- could it or any other state have carried out such a clinical trial which has meant so much to the saving of lives in the state of Utah?

One more point: We are constantly badgered in a seemingly endless stream of Prevention reports to the Congress from the Public Health Service to bring under successful treatment control the four in five Americans who have been detected as having hypertension but who drop out of treatment very early in the game. As an example, a person goes to a personal doctor or a community clinic and is detected as having high blood pressure. He is put on a drug and told to report back in two months for a checkup. But the disease has no symptoms -- it is known as "the silent killer" -- and he feels pretty good, so he doesn't continue the treatment. This problem is fairly acute in Utah. Over the past several years, the Utah State Department of Health has been trying to deal with this drop-out phenomenon. Over 130,000 hypertension clinic visits have been analyzed to determine why patients with elevated blood pressure did not return for follow-up visits. This very fine paper, which I have had a chance to review, has been selected for presentation at the National Conference on High Blood Pressure in New York City in May.

Mr. Chairman, the position of our organization is not to oppose adamantly any legislative proposal. We appreciate the sincerity of those proposing the block grants, and we particularly appreciate the manner in which you have raised some of the difficult problems relating to it at the April 2 hearing. However, we cannot avoid stating flatly that a lot of homework has not been done. First of all, it is inexcusable that we are still forced to testify on legislation introduced 24 hours ago. Secondly, after listening to departmental witnesses over the past several months, I have come to the conclusion that very little thought went into the preparation of these block grants. There is no point in fudging the issue -- from the very beginning, the Office of Management and Budget just rolled out a set of figures. There has been practically no consultation with the national voluntary organizations which have been the backbone of this great project. We resent this very deeply. I do not speak idly; I guarantee, Mr. Chairman, if you visited some of the local communities in Utah which have set up threadbare hypertension screening programs which are working, mainly because of unpaid volunteer efforts, you would take a new and possibly negative view of the computerized block grant mechanism.

We are all told about the savings we must make to fight inflation, and we all agree. However, the cut suggested by the prevention health grant for 11 programs amounts to $100 million -- Secretary Weinberger spends that by noon every day. In Utah, the federal hypertension allocation started at $40,000 a year -- not enough to do anything. After years of struggle, the Fiscal 1981 allocation for Utah is $154,000, not enough to keep on treatment 80 percent of the hypertensives in the state. Our plea is simple. Give us the opportunity for thoughtful hearings on these block grants. Bring in the people who have benefited from them. Listen to the great volunteer health organizations whose members have given hundreds of thousands of hours of their time to keeping the hypertension program going. Then, and only then, will you be competent to make a decision. We have no fear of what that decision will be.

THE HYPERTENSION GRANT - BLOCKED, UNBLOCKED OR ORPHANED?

Testimony Before House Labor-HHS-Education Appropriations Subcommittee
On Fy 1982 High Blood Pressure Project Grants - Section 317 (a)(1) PHS
by
Mike Gorman, Executive Director, CITIZENS FOR THE TREATMENT OF
HIGH BLOOD PRESSURE (Dr. Michael E. DeBakey, Chairman)
10:20 A.M., Friday, June 19, 1981
Room 2358, Rayburn House Office Building

Mr. Chairman and Members of the Committee:

We are somewhat confused as to what our future status will be under the various health block grants being proposed by the Administration and by the Committees in both the House and the Senate. We thought it might be important to put on the record some of the evaluations - from representatives of each political party and from the medical community generally - of the history and effectiveness of the High Blood Pressure Grant to the states since its inception:

1.--Secretary of Health and Human Services Richard S. Schweiker--Address to the National Health Council May 15, 1981:

"I do want to share with you a sampling of some programs that have resulted in obvious concrete improcements in our health. One is the High Blood Pressure Education Program ... Since its inception in the early 1970s there have been definite strides in the control of hypertension. Between 1971 and 1975 the percentage of the population with undiagnosed moderate-to-severe hypertension declined 30%.

Throughout the decade the mortality rate declined in all cardiovascular diseases, most notably for two leading killers: the mortality rate for stroke fell 40% and for coronary heart disease, it fell 20%."

2.--House Appropriations Committee--August 1980 Report to the Congress:

"If the program (hypertension project grant) were expanded to reach additional millions of hypertensives not now being served it would be possible to extend the lives of tens of thousands of Americans who die each year at an earlier age than they should ... the decline in morbidity and mortality associated with hypertension may yield an economic return that can be measured in the billions."

3.--National Blue Cross/Blue Shield--1980 report:

"The High Blood Pressure Program is the most successful preventive effort against a chronic disease."

4.--Dr. Robert Levy--Vice Chancellor for Medical Affairs, Tufts University--former Director, National Heart, Lung and Blood Institute:

"From its inception, 80 percent of the strength of this program has been the continued support of the private sector. The High Blood Pressure Coordinating Committee, including the American Heart Association, American Medical Association, American Nurses Association, National Medical Association, American Hospital Association, American Osteopathic Association, Citizens for the Treatment of High Blood Pressure, American Academy of Family Physicians, American College of Chest Physicians, American College of Physicians, American Dental Association, American National Red Cross, American Pharmaceutical Association, National Kidney Foundation, is responsible for the technical studies and medical guidelines which have made this program such a success.

"But we have many additional resources. It is estimated that we receive the equivalent of at least $50 million a year in voluntary efforts. Our mass media program accounts for a good portion of this. Through the Advertising Council of America, we have reached millions of Americans with our message. Our major 1981 television spokesman is Bob Hope. During High Blood Pressure Month each year, fire departments, Red Cross blood banks, private physicians and literally thousands of industries conduct accelerated screening programs to detect victims of hypertension."

5.--Elliot Richardson--former Secretary of Health, Education and Welfare; co-founder with Dr. Theodore Cooper of the National High Blood Pressure Education Program. Remarks on receiving joint Albert Lasker Award for Public Service along with Dr. Cooper in 1978:

"I know of no finer example of a close cooperative effort between federal, state and local governments and professional and lay people organized in their own communities."

Elliot Richardson Statement from speech before National Conference on High Blood Pressure May 5, 1981:

"However, I make this statement unequivocally -- if any health program deserves to retain its categorical, identifiable status because it transcends state lines and because it needs continued visibility to attract permanent support from the private sector, then the hypertension project grant is that program. Tied intimately together with the National High Blood Pressure Educational Program of the National Heart, Lung and Blood Institute, it has proven to be the first successful preventive campaign against a chronic disease."

6.--Congressman Louis Stokes from Congressional Record May 19, 1981:

"Mr. Stokes. Mr. Speaker, hypertension or high blood pressure is a major epidemic of the 20th century. It is estimated that 60 million Americans have high blood pressure, and, consequently have a higher than average risk of stroke, heart attack, heart failure, kidney disease, and renal failure."

7.--Dr. Theodore Cooper--former Assistant Secretary for Health under President Ford--testimony on the National Hypertension Program before this very Committee on April 1, 1980:

"Mr. Chairman, this is in no way a federal handout program. As the Senate Appropriations Committee observed in its report last year, the federal government contributes only about one-third of the total funding for state and local hypertension projects. In addition, state and local health departments are bearing a disproportionate share of the financial costs of hypertension control. Because the federal grant does not include any funds for medical treatment, the heavy burden of such treatment expenditures falls upon the states and localities."

8.--Dr. Edward Brandt, current Assistant Secretary for Health, discussing the Prevention Profile Report submitted to the President and the Congress in the fall of 1980. He named 15 areas in which preventive medicine and altered life styles could save hundreds of thousands of American lives. At the top of his list was high blood pressure control.

Mr. Chairman, we obviously don't really know where we stand at the present time. In H.R. 3688, introduced by Chairman Waxman of the Health and Environment Subcommittee, we are authorized $20 million for Fiscal 1982, $21 million for Fiscal 1983, and $21.5 million for Fiscal 1984 as a separate line item in Section 2 of the bill. In the Republican alternative package proposed by Mr. Madigan (H.R. 3222) we are thrown in with 10 rather unrelated services, such as rat control, adolescent pregnancy activities, family planning, deterring smoking, lead-based paint poisoning, and so on. The total authorization for this legislative can of worms is 242 million dollars. The major portion of the authorization goes for family planning. On the Senate side, we have an Administration bill, a bill from Chairman Hatch of the Labor and Human Resources Committee, a bill from Senator Kennedy and assorted other proposals.

The current budget for the hypertension project grants to the states is $20 million. The Carter Administration request for Fiscal 1982 based upon our acknowledged successes in preventing disease was $25,883,000. The Coalition for Health Funding, an amalgam of 62 national health organizations, held hearings on our program last December. It recommended $35 million for Fiscal 1982 as a starting sum toward the long-term goal of reaching 36 million hypertensives whose disease is not now under control.

We are reasonable people; we know the realities. We therefore request a minimum of $20 million for the High Blood Pressure Project Grants to the states in Fiscal 1982. We know how unsatisfactory this figure is, since it is the same appropriation as we had back in Fiscal 1980. Because of inflation, it is really a 30% cut in program.

Mr. Chairman, we have no recommendations to offer for Fiscal 1983 and Fiscal 1984 because we are absolutely shocked at the manner in which the Authorizing and Appropriations Committee jurisdictions have been pre-empted by an arbitrary reconciliation figure adopted even before authorizing hearings were held. When we testified on March 16 before the Senate Appropriations HHS Subcommittee, we were given three minutes to present our case.

Mr. Chairman, we want to return to a genuine legislative process. As one who was quite active in the events leading up to the Budget and Impoundment Control Act of 1974, I feel very strongly that its major purpose has been perverted. I particiapted in that process because President Nixon had impounded $80 million in Congressionally appropriated funds for mental health. We sued the Federal Government; we went into the Federal Court and won our case.

Now we have impoundment by gun-at-the-head reconciliation. The whole purpose of the 1974 Act was to give the Congress the budgetary tools with which to develop alternatives to Administration proposals. Time was allotted for due deliberation by both the Authorizing and Appropriations Committees. We who are deeply committed to these health programs will fight until we have a fair chance to present our case adequately. We do not think we are being heard when a computerized block grant figure is thrown at us by the Office of Management and Budget.

More than a century ago William Lloyd Garrison, slavery's greatest foe, had this to say:

"Urge me not to accept moderation in a cause like the present. I am in earnest. I will not equivocate; I will not excuse; I will not retreat a single inch; and I will be heard."

Mr. Chairman, the fight has just begun.

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STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY
EDMUND G. BROWN JR., Governor

DEPARTMENT OF HEALTH SERVICES
714/744 P STREET
SACRAMENTO, CA 95814
(916) 445-1248

July 21, 1981

The Honorable Orrin Hatch
4230 Dirksen Senate Office Building
Washington, D.C. 20510
Attention: Dr. David Sunwald

Dear Senator Hatch:

Thank you for the opportunity to present testimony on Preventive Medicine and Health Promotion to the Labor and Human Resources Committee. Your interest in this most important and timely health issue is commendable.

The State of California is committed to the development of health promotion activities as a means of reducing health care costs, improving health status and raising the productivity of our population. We believe that strong health promotion policies must be incorporated into all health legislation and programs.

The enclosed testimony provides background on some of California's innovative health promotion programs and presents our views on the roles and activities of State and Federal agencies which will enhance and advance health promotion.

I am looking forward to working with you and the committee in support of health promotion and disease prevention programs.

Sincerely,

Beverlee A. Myers
Director

Enclosures

TESTIMONY
OF
BEVERLEE A. MYERS
DIRECTOR, CALIFORNIA STATE DEPARTMENT OF HEALTH SERVICES
U.S. SENATE COMMITTEE ON LABOR AND HUMAN RESOURCES
THE HONORABLE ORRIN HATCH, CHAIRMAN
JULY 21, 1981

Mr. Chairman:

It is my pleasure to submit written testimony to the Labor and Human Resources Committee regarding health promotion and prevention issues. I would like to congratulate the Committee for bringing federal attention to this growing body of knowledge and experience. The State of California has considerable interest and involvement in health promotion and prevention. I would like to take this opportunity to provide a description of some of our innovative efforts in this area and to comment on the roles of government and individuals in relation to prevention and health promotion.

Health promotion is an investment which accrues long term returns in improved health status, improved quality of life, and reduced health care costs. While public discussions and funding continues to focus on illness and the medical care needed to cure illness, California believes and is committed to the principle that the time for prevention and health promotion activities has arrived. The costs of health care have risen so high that the effects are being felt by individuals, families, employers, insurance companies, and government. Nearly 10% of our gross national product is spent on the diagnosis and treatment of disease. However, there is a growing body of evidence that suggests that costs can be reduced and that significant improvements in health status can occur primarily from healthier individual behavior and a healthier environment. This knowledge is being reflected in the attitudes and values of the nation - more people are adopting healthier lifestyles and, according to a recent Harris Poll, 65% of business and 69% of labor organizations favor an expansion of preventive health care. Government must continue to act to provide preventive services realizing that we cannot expect immediate payoffs for our efforts, but we are making an investment in the future.

We have seen the gains which can be accomplished through the prevention of disease. Smallpox eradication, reductions in infant mortality, declines in heart disease and stroke mortality, and the successful reduction of mortality through hypertension detection and follow-up are achievements that demonstrate the strides that can be made against diseases. These achievements are made possible through a combination of enhanced prevention services, changes in the environment, and the adoption of risk-reducing lifestyles.

Prevention and health promotion is an area which requires participation from all levels. Although the responsibility for personal health status rests primarily with individual choice and behavior, government, physicians, hospitals, and third party payors must all make a commitment to prevention. Individuals must have access to appropriate information, and must have the opportunity and incentives to pursue healthy lifestyles.

California is taking a leadership role in health promotion activities. We are identifying state needs, developing innovative and effective intervention measures, providing assistance to local agencies in implementing programs, and enforcing environmental safeguards for such problems as toxic wastes and radiological exposure.

In general, our experience has shown that meaningful government action and policies should be directed toward:

- Increasing individual sense of responsibility for health
- Enhancing individual ability to understand and cope with health problems
- Providing a safe and healthy environment
- Providing access to health care when needed
- Offering adequate programs and information to populations designated as "at risk"
- Acting as a model for the encouragement and development of health promotion and prevention programs at work

In addition, keeping people healthy will include maintenance of our infectious disease control activities, including environmental controls, immunization, epidemiology and prevention of hospital-based infection. If we relax these efforts, we will see an upsurge in infectious disease once again.

California is taking innovative steps to assure statewide attention to prevention and promotion activities. I would like to describe some of these efforts:

1. Governor's Wellness Assurance Initiative

   In order to meet California's health needs for the 1980's, the Governor proposed a unique endeavor to use existing public and private resources in a new way. State agencies and a Governor's appointed council are providing leadership and incentives to private agencies to encourage a health oriented system of medical care. The initiative's success comes from the active involvement of all facets of the community.

There are three major areas of concern in the initiative: the assurance of health at the worksite, in the community, and in the environment.

The worksite - The efficiency of health promotion activities at the worksite is well documented. The initiative recommends developing profiles of community resources available to help employees implement a health promotion program, and recommends that information and technical assistance be available to assist employers in constructing worksite programs.

Such programs could include:

- cholesterol and LDH level monitoring
- blood pressure monitoring
- health hazard appraisal
- self scoring stress exam
- intervention programs
- epidemiological monitoring systems

The community - Schools have long served the community in preventive health and promotional endeavors. Starting with the pre-school level, the initiative seeks to give children the tools and encouragement for good health. The initiative also strives to develop public service announcements to be used in a media campaign to promote wellness, and it develops specific health promotion programs for the disabled and elderly to deal with social isolation and other risk factors.

The environment - The initiative continues the State's strong efforts in reducing environmental hazards. Strict enforcement of regulations governing the dumping of toxic wastes, pollution of rivers, streams, and ground water, and exposure to radiological hazards is stressed.

2. The State Department of Health Services' Employee Risk Reduction Program.

In response to the need for health promotion at the worksite, the State Department of Health Services is developing and evaluating an employee risk reduction program. This program, which could serve as a statewide model, could help other employers (including the federal government) to improve their own prevention activities.

The program addresses six potential areas of delivery: environmental standards and control, chronic disease prevention and control, stress reduction and management, physical fitness, smoking withdrawal, and improved nutrition.

To date the Department has developed an employee interest/needs assessment; devised a questionnaire to establish data and evaluation criteria for the project; developed a roster of local community health promotion programs; and formulated plans to market health promotion activities to approximately 900 Department of Health Services employees.

3. In addition, California has developed innovative methods of including health promotion and prevention activities in the programs we administer.

   - The State developed a Statewide Hypertension Impact Study which promotes hypertension control. The program uses local hypertension councils to address issues regarding high blood pressure. Six local councils have been developed and are participating in educational and public awareness activities. The study also completed and published results of a statewide household interview survey designed to estimate the prevalence of hypertension in California. (The study concluded that 24% of Californians suffer from hypertension).

   - The State has also completed a State Health Objective Project that sought to determine the current health status of California residents and project future health status to 1990. This project was based on the U.S. Public Health Services list of specific objectives for meeting national health goals included in "Promoting Health Preventing Disease Objectives for the Nation, Fall 1980", U.S. Department of Health and Human Services. Objectives listed in the state report are the result of a year long effort covering 15 different priority areas concerning the health of the individual. Realization of the objective would improve the health of Americans at five major life stages - infancy, childhood, adolescence, adulthood and older adulthood.

   - California has implemented a Dental Health Prevention Program, which provides for a nutrition education, daily brushing and flossing, and a fluoride rinse program in the public schools.

- The Child Health and Disability Prevention (CHDP) program, California's expanded "EPSDT Program", provides early and periodic health assessments and referral for diagnosis and treatment of potentially handicapping conditions for California's children and youth. This program includes State paid health assessments for low income children, mandatory first grade health screenings and a variety of health education activities geared towards children and their parents in addition to the Federally mandated EPSDT requirements.

- California's Health Education Risk Reduction Program provides educational intervention in the areas of smoking, alcohol, obesity, fitness and stress to high risk populations in local jurisdictions throughout the State. California is, in addition, the only State to supplement Federal program funds with State general funds.

California believes that prevention and health promotion must be given top priority by the Congress and the Administration. The Secretary of the Department of Health and Human Resources needs to support activities designed to maintain and improve the health status of our population. Continued and increased emphasis should be given to the development and expansion of programs in disease prevention and health promotion including women's health, geriatrics, environmental health and nutrition.

In developing policy and programs, we hope Federal agencies will consider:

- Giving the states needed flexibility to develop and implement innovative approaches to health problems. Categorical funding tends to create difficulties in developing coordinated services.

- Allocating additional funds to train more mid-level health practitioners capable of providing preventive health and health promotion services at a lower cost.

- Safeguarding Medicaid benefits which are preventive in nature from cuts. It is important and cost-effective to assure that our nation's poor have access to preventive services.

- Encouraging third party payors to increase their coverage of prevention services. Although some states have passed legislation requiring the availability of preventive benefits, Federal law prevents mandating such benefits. For example, the California legislature recently enacted a comprehensive preventive care component in its insurance code which requires insurance plans to offer comprehensive care for children. Although coverage must be available, it is not required as a benefit. Consequently, this benefit has not been utilized to its full potential.
- Releasing funds earmarked for "Special Nutritional Surveillance Survey" to be funded by the Center for Disease Control. The survey would enhance our ability to collect nutritional data for the improvement of various food delivery and supplementation programs and the minimization of nutrition related health problems.
- Insuring that the Administration's cuts in funding for the prevention block grant are no greater than any other proposed reduction in funds. In addition, funds designated for promotion and prevention activities should not be used for other non-related activities.

In summary, our current approach to illness is inflationary and does not address some of the basic issues of improving the health of our citizens. Our reliance on technological intervention has overshadowed the role of the individual in protecting and enhancing personal health.

Time is opportune for Federal emphasis on disease prevention and health promotion activities. The importance of supporting stronger efforts can not be under played. We need a vigorous national commitment in this timely and important health issue.

KIMBERLY-CLARK CORPORATION

August 14, 1981

ROBERT E. FREER, JR.
WASHINGTON COUNSEL

Before the Senate Committee on Labor and Human Resources; hearings on Preventive Medicine and Health Promotion

My name is Robert E. Dedmon, and I am Staff Vice President-Medical Affairs for Kimberly-Clark Corporation. I am the administrative director of Kimberly-Clark's Health Management Program for both its domestic and international operations.

Kimberly-Clark Corporation is a world-wide manufacturer of lumber, paper and paper products. The Corporation has production facilities in twenty states and twenty foreign countries, and our headquarters are located in Neenah, Wisconsin. Our total world-wide employment is over 30,000, and our annual sales are over $2.5 billion.

Our products are grouped into three major classes: Consumer and Service; Newsprint, Pulp and Forest Products; and Paper and Specialties. The Corporation is perhaps best known for such trademarked products as KLEENEX® facial tissues, KOTEX® menstrual care pads and tampons, KLEENEX HUGGIES® disposable diapers and other consumer paper products. However, it also manufactures a variety of specialty and fine papers, substantial quantities of newsprint, various nonwoven fabrics and a number of disposable health care products.

The following comments are submitted for the Record in response to Chairman Hatch's request of July 14, 1981 for written testimony pertaining to the hearings on Preventive Medicine and Health Promotion before the Committee on Labor and Human Resources.

Health promotion and disease prevention are everyone's concern. The nation's health bill for 1980 exceeded $230 billion and is increasing at a rate of twelve to fifteen percent annually. After World War II a concerted effort was made to ensure an adequate supply of hospital beds and the shortage of physicians was addressed by increasing the number of medical schools. In addition, many advances in diagnostic and therapeutic technology occurred which contributed greatly to the effectiveness of medical treatment for many serious and otherwise

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fatal diseases. However, the far reaching gains to the public health obtained through advanced technology could be substantially retarded by approaching financial and manpower limitations dictated by the state of our economy.

In light of this trend, it is time to turn our attention to efforts at prevention through education of government, industry and the individual. As has been pointed out by other authors, such as the late Dr. John Knowles, the next major advance in the health of this nation will be made through changes in lifestyle which are brought about through cultural innovation and intensive health education throughout the population. While the incidence of fatal heart attack has declined significantly in the U.S. over the past several years, other health problems which can be addressed by health education and prevention efforts loom on the horizon. Not the least of these are the problems of cancer, alcohol and other drug abuse, mental illness, and health problems of the aged. There is enough evidence at present to justify the recommendations of a prudent diet in regard to saturated fat, salt and sugar, a program of regular exercise, avoidance of abuse of various chemical substances, education in regard to stress management, and more concerted efforts in the area of identification and control of hypertension. Alcoholism alone costs this country in excess of $43 billion annually. Another area of great concern and cost is that of work-related back disability. Preventive educational and exercise programs could have a positive impact on reducing the suffering and economic loss brought about by these very common problems. Prevention has great potential if health education is aimed at changing people's attitudes about their use of prescription drugs or drug abuse, their dietary practices and their exercise habits. Government can play a significant role by providing incentives in the form of tax credits for those companies who are investing in health education, health promotion, and exercise programs.

Evidence of health education and promotion is readily apparent on any given day throughout the nation. One need only drive around the parks near Capitol Hill during lunchtime to observe people jogging. The dietary habits of the nation have changed and people are recognizing the effects of substance abuse and the importance of effective stress management. Industry is already making an effort in the areas of health promotion and disease prevention. Industry management has changed roles from serving passively on the board of trustees of hospitals to more vigorous and involved roles in trying to solve problems associated with health care delivery and health care costs. Prevention is one of the high points of that industry effort. Health promotion programs are recommended as a part of a comprehensive health care strategy, as recently pointed out in the National Chamber Foundation' series, A National Health Care Strategy, available from the National Chamber Foundation, 1650 N Street, N.W., Washington, D.C. 20016 and industry has begun to act on that recommendation.

Many companies, such as Kimberly-Clark, have embarked on comprehensive preventive programs. Kimberly-Clark's health education and promotion program, which is called "The Health Management Program," is one of the nation's most comprehensive, disease prevention efforts. The program consists of four principle areas which are: 1) medical screening and exercise testing; 2) physical fitness including an in-house cardiac rehabilitation program; 3) health education; and 4) an employee assistance program for alcoholism and other special personal health problems. The program is available to all Kimberly-Clark employees, both salaried and hourly. While the impact of Kimberly-Clark's program and other similar programs on absenteeism and the rate of escalating health care costs will take several years to measure, there is no question that these programs have been a great service to a number of individuals in whom serious or disease risk factors were found. Such a program also puts substance in the fact of an enlightened management's concern for the welfare of employees. A letter received from a blue collar worker in whom lung cancer was discovered is quoted below as evidence of this.

> "We would like to express a sincere thank you for the Kimberly-Clark Health Center program recently extended to hourly-paid workers. We very much appreciate the fact that, with the excellent prognosis, your program and Dr. Dedmon's expertise have given one of your employees an opportunity for a new lease on life."

While there is still considerable debate about the effectiveness of restricting dietary cholesterol to control serum cholesterol levels and about the value of physical fitness in the prevention of heart attack, certain points seem clear:

1. A program of regular exercise has been shown to enhance exercise tolerance and quality of life in persons who have suffered from heart attack.

2. Studies on Harvard Alumni, California longshoremen and British civil servants, bus drivers and conductors, suggest strongly that there is an inverse relationship between an individual's level of fitness and their susceptibility to heart attacks (Studies available from Dr. Dedmon).

3. Regular exercise has been shown to be effective as a component of stress management and in the treatment of depression and hypertension.

4. Appropriately designed health education efforts in the areas of hypertension, alcohol and drug abuse, and breast self-examination are effective prevention tools.

5. Behavior modification techniques conducted in appropriate health education settings can be effective in achieving and maintaining weight control.

It is these points which Kimberly-Clark has focused upon in its comprehensive Health Management Program.

We can best safeguard our health by remaining active and fit and recognizing the truth of the aforementioned points. A program of regular exercise will serve as a facilitator to other preventive efforts which are the responsibility of the individual. The government should encourage programs which include minimum, adequate medical screening in combination with carefully designed, maximal intervention efforts in the area of health education and exercise. Significant components of the health education effort must include education regarding abuse of alcohol and other chemicals, physical fitness, cardiopulmonary resuscitation, hypertension control, prevention of back injury, stress management, and dietary and nutritional management.

Spiraling health care costs demand that we reallocate some resources from disease repair to disease prevention. This will only happen through an enlightened leadership effectively using the political process. The survival of the United States as a nation depends upon a healthy people. The government should recognize that it is time to address this question squarely. This means that the leadership of this nation must not only support health promotion and preventive efforts on the part of others but must itself, by example, practice those habits conducive to good health. It is appropriate to recall the words of Rudyard Kipling:

> "Nations have passed away and left no traces
> And history given the naked cause of it--
> One single, simple reason in all cases,
> They fell because their people were not fit."

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Associate Editor, *Holistic Health Review*;
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Physician;
SHARON L. YENNEY,
Director of Health Promotions, Parkside Medical Services Corporation;

STATEMENT

THE HEALTH POLICY COUNCIL

ON

PREVENTIVE MEDICINE AND HEALTH PROMOTION

BEFORE THE

SENATE COMMITTEE ON LABOR AND HUMAN RESOURCES

THURSDAY, JULY 16, 1981

PRESENTED BY:
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Mr. Chairman, members of the Committee, these hearings are probably the most important activity this committee has been involved in during the 97th Congress. These hearings, conducted in the shadow of the Reconciliation process and dwarfed by the clamor for budget cuts in Health programs, encourages ideas set forth by the testimony presented, and could save more in health care dollars than anything else being considered or proposed by Congress and the Administration.

At last, a new partnership is forming to improve the length and quality of life and the productivity of Americans. Prevention and health promotion is being recognized through a diversity of opportunities as a way to promote better health by the Federal Government - State, county, and city governments; as well as industries, academic centers, voluntary, social, and religious associations; health providers, and health professionals.

Most importantly are individuals who provide the success of any of our efforts. Individuals, especially young people, must become aware of the hazards of subjecting their bodies to the abuse of smoking, the use of drugs and alcohol. The work places, community action groups, and schools must provide information and encourage access to opportunities for physical fitness, nutritional healthful foods, and for health promotion programs and services that reduce the use of sodium in our diets, and control hypertension.

The public should expect to have access to the knowledge, skills, and information that industries, academic and medical leaders, and government experts have accumulated so they can make sound judgements about their own health and behavior. Healthy mothers need to know about the risks of pregnancy and the proper course to follow for infant care. Parents need to know about immunization and infectious agent control, as well as good health habits for raising their healthy children. All of us need to understand the impact of stress on our mental health and well-being.

We know that people, in many situations, can choose to stay healthy and to avoid certain diseases, especially if we can perfect ways to disseminate the results of prevention research and technology.

A major effort needs to be made to make information available in an understandable form that focuses on environmental risks and hazards; toxic agent identification; and preventable diseases. Individuals and their families can then make some freely-made decisions on this major health priority.

In our efforts to develop this new prevention partnership, we must not overlook the importance of bio-medical and social research, especially reserach that is directly applicable and designed to prevent disease and promote good health. This sphere of prevention opportunity is exciting, and ranges from understanding senility in the elderly - to techniques of intervention, such as the chemoprevention of cancer.

This Committee and the participants of this hearing can develop recommendations and a strategy for meeting people's needs in prevention and promotion through public and private initiatives. Our interest can be in: expanding our understanding of how we improve the health of all Americans; recognizing the progress made to date by existing efforts; accelerating these achievements, beginning now; to target on new areas to pursue, and provide needed resources for accomplishment. We believe the American people will respond and accept their responsibility to a challenge of a national strategy to improve the health of everyone - young and old alike.

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STATEMENT

July 13, 1981

It is my understanding that the Labor and Human Resources Committee will be conducting hearings later this week on the role of the Center for Disease Control in performing health hazard appraisal and other services. I believe that Dr. Fogge of the Bureau of Health Education Division of CDC will testify.

As a provider of health education and assessment services, I would like to advise you and your Committee of my concerns regarding some of CDC's actions during the past few years. I am the president and medical director of Medical Datamation, a private, for-profit Ohio Corporation. To our dismay, we have found ourselves competing with CDC in providing health hazard appraisal services to industries, colleges, and other organizations. We feel that we provide excellent services at reasonable prices, but we find it difficult to compete with the "free" service provided by CDC.

In response to our inquiries and our protests in the past, Dr. Fogge and others at CDC have stated that they were doing only a "few" appraisals to let people know what the process is like. They have stated that they will not provide a regular and substantial volume of such service to any client. However, we continue to find client prospects reporting that they get services similar to our own from CDC, at no cost!

The Center for Disease Control has occasionally provided us with statistical data that supports our research and development efforts and our health evaluation services. We appreciate such data, and we feel that basic research and information provision are proper activities for a Federal agency. However, we most strongly object to any Federal agency using our tax dollars to offer a "free" competitive service to our potential clients. It seems to me that the Center for Disease Control should stick to investigative activities and information disseminating and it should avoid competitive practices that are the proper domain of private sector companies, such as Medical Datamation.

For presentation at the special Senate Committee Hearing on Preventive Medicine and Health Promotion, July 16 and 17, 1981, Washington, D.C.

John Irons, M.D
President and Medical Director
Medical Datamation

Office of Public Affairs: 1110 Vermont Avenue, N.W. Suite 820,
Washington, D.C. 20005

202/822-9380

American Heart Association

WE'RE FIGHTING FOR YOUR LIFE

July 23, 1981

David N. Sundwall, M.D.
Professional Staff Member
Committee on Labor and Human Resources
United States Senate
Dirksen Senate Office Building, Room G 237
Washington, D.C. 20510

Dear Dave:

Thank you very much for the opportunity to meet with you despite your very busy schedule. I look forward to extending our discussion under less hectic circumstances and I do hope that the ultimate result will be a comprehensive smoking control program for the nation which could be the most effective step in prevention of disease that I can conceive of.

Enclosed is a brief statement on behalf of the American Heart Association which you may wish to incorporate in the testimony submitted at the recent hearing on prevention conducted by the Committee on Labor and Human Resources.

The American Heart Association is vitally interested in prevention and is anxious to cooperate with you in any way possible.

Sincerely,

Jim

James A. Schoenberger, M.D.
President

Encl.

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Statement on Preventive Medicine and Health Promotion

By

James A. Schoenberger, M.D.
President
American Heart Association

The American Heart Association has a vital interest in health promotion and disease prevention. There is increasing evidence that the major causes of death -- heart attacks and stroke -- are preventable.

This is supported by the facts that there has been a 25% reduction of mortality due to coronary heart disease in the past ten years and that the death rate from stroke is decreasing at the annual rate of 5%.

The American Heart Association has been active for many years in identifying those factors which are strongly related to or etiologically identified as factors which lead to the underlying problem of atherosclerosis.

As the importance of these factors has become clarified the Heart Association has played an important role in efforts to reduce risk of heart attack and stroke by control of hyperlimpidemia and hypertension. Although these control programs have not yet reached their ultimate goal, considerable progress has been made.

In contrast, control of cigarette smoking remains a major unsolved comtributor to excess morbidity and mortality, not only for cardiovascular disease, but also for other major diseases, particularly cancer of the lung and chronic lung disease.

It has been estimated that over 300,000 annual deaths can be directly attributed to the cigarette smoking habit. Untold millions of individuals with chronic disability from heart disease and pulmonary insufficiency exact a heavy toll on the health resources of the nation.

Considering the heavy burden to the health care system which can be directly attributed to the cigarette smoking habit, there is ample justification for a concentrated effort to eliminate cigarette smoking as effectively as possible.

The American Heart Association suggests that such effective control would probably make a greater contribution to the health of the nation in a shorter period of time than any other measure of prevention now available to medical science.

It is noteworthy that there is no challenge of scientific merit to the hypothesis that cigarette smoking is causally related to premature death and disability. Nor is there any supportive agrument against the hypothesis that control of cigarette smoking is a simple, direct and effective approach to the problem.

Therefore the American Heart Association recommends prompt and effective action to control and eliminate, to the extent possible, the widespread habit of cigarette smoking.

The Heart Association believes that this can be accomplished by a variety of methods in consort, rather than in a single measure. The Heart Association supports the concept that a partnership of governmental and voluntary health agencies should be developed to achieve this end.

Such a consortium would marshall the efforts and resources of the many organizations which share the concern of the American Heart Association that the efforts to control cigarette smoking have, to date, been too few and too ineffective to have an adequate impact on this major health problem.

The Heart Association is particularly concerned about cigarette smoking in the young, in pregnant women, in the non-white minority groups and in the lower socio-economic strata.

We believe that only a concerted public health effort of the type proposed can deal effectively with these individuals who, up to now, have resisted efforts to dissuade them from starting or to persuade them to quit smoking cigarettes.

Dr. SUNDWALL. Thank you. The hearing will stand in recess, subject to the call of the Chair.

[Whereupon, at 11:30 a.m., the hearing was recessed, subject to the call of the Chair.]

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